

THE JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

NOVEMBER 11TH, 1873.

Professor BUSK, F.R.S., *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

New members were announced, viz.: PHILIP ARTHUR SCRATCHLEY, Esq., Inner Temple, Barrister-at-law; DAVID JOHNSON, Esq., M.D., 84, Old Kent Road.

The following presents were announced, and the thanks of the meeting voted to the respective donors.

FOR THE LIBRARY.

- From the SOCIETY.—Journal of the Asiatic Society of Bengal. Part I, Nos. 1, 3, and 4; Part II, Nos. 1, 2, and 4. Proceedings, ditto, No. 10, 1872; Nos. 1, 2, 3, and 4, 1873. 8vo.
- From the SOCIETY.—Bulletin de la Société Impériale des Naturalistes de Moscou, No. 4, 1872; No. 1, 1873. 8vo.
- From the SOCIETY.—Proceedings of the Society of Antiquaries of Scotland. Vol. IX, Part, I. 8vo.
- From the SOCIETY.—Proceedings of the Philosophical Society of Glasgow. Vol. VIII, No. 2. 8vo.
- From the EDITOR.—La Revue Scientifique. Nos. 51 and 52, and Nos. 1-20, 1873. 4to.
- From the INSTITUTION.—Journal of the Royal United Service Institution. Vol. XVI. Appendix, Vol. XVII, Nos. 72, 73, and 74, 1873. 8vo.
- From the SOCIETY.—Bulletin de la Société d'Anthropologie de Paris. Tom. VIII, fas. 1 and 2. 8vo.
- From the ASSOCIATION.—Journal of the Royal Historical and Archaeological Association of Ireland, No. 13, 14, and 15, 1873. 8vo.
- From the AUTHOR.—Om Lappland och Lapparne. By Gustaf von Düben. 8vo.

- From the EDITOR.—*Medizinische Jahrbücher der K. K. Gesellschaft der Ärzte in Wien.* 1 and 2, 1873. 8vo.
- From the SOCIETY.—*Proceedings of the Royal Geographical Society.* Vol. XVII, Nos. 2, 3, 4, and 5. *Journal*, ditto, Vol. XLII, 1872. 8vo.
- From the SOCIETY.—*Proceedings of the Society of Antiquaries of London.* Vol. V, Nos. 1 and 7. 8vo. *Archæologia*; or, *Miscellaneous Tracts relating to Antiquity.* Vols. 40-43, in 7 parts. 4to.
- From the ACADEMY.—*Bulletin de l'Académie Impériale des Sciences de St. Petersburg.* Vol. 17, Nos. 4 and 5. 4to.
- From the EDITOR.—*The Food Journal* for July, August, September, and October, 1873. 8vo.
- From JAMES BURNS, Esq.—*Human Nature* for July, August, September, and October, 1873. 8vo.
- From the EDITOR.—*The Spiritualist* for July, August, September, and October, 1873.
- From the SOCIETY.—*Memoires de la Société d'Anthropologie de Paris.* 2 vols. 8vo.
- From the SOCIETY.—*Proceedings of the Royal Society.* Vol. XXI, Nos. 145 and 146. 8vo.
- From the AUTHOR.—*Phœnician Inscriptions.* Part I. By the Rev. Dunbar I. Heath, M.A. 8vo.
- From the ROYAL SOCIETY OF COPENHAGEN.—*Oversigt over det Kongelige Danske Videnskabernes Selskabs.* No. 2, 1872. 8vo.
- From the SOCIETY.—*Mittheilungen der Anthropologischen Gesellschaft in Wien.* Band III, Nos. 1, 2, 3, 4, 5, and 6. 8vo.
- From the SOCIETY.—*Jahrbuch der K. K. Geologischen Reichsanstalt.* Band XXIII, January, February, March, April, May, June, 1873. 8vo. *Verhandlungen*, ditto, January, February, March, April, May, June, 1873. 8vo.
- From the AUTHOR.—*Researches into the Bushman Language.* By Dr. Bleek. 8vo.
- From the Executors of the late HENRY CHRISTY, Esq.—*Reliquiæ Aquitanicæ.* Part XII, 1873. By Edouard Lartet and Henry Christy. 4to.
- From the AUTHOR.—*Sur l'Anthropologie Préhistorique.* By M. Schaaflhausen. 8vo.
- From the ASSOCIATION.—*Proceedings of the Geologist's Association.* Vol. XIII, Nos. 2 and 3. 8vo.
- From the AUTHOR.—*Recherches sur les Conditions Anthropologiques.* Paris, 1873. By Théodore Wechinakoff. 8vo.
- From the INSTITUTE.—*Transactions of the New Zealand Institute.* 1872. Vol. V. 8vo.
- From the EDITOR.—*Matériaux pour l'Histoire Primitive et Naturelle de l'homme.* Tome IV, Nos. 2 and 3. 8vo.
- From the SOCIETY.—*Archivio per l'Antropologia e la Etnologia*, 1873. Vol. III, Fasc. 2. 8vo.

- From the ASSOCIATION.—Report of the British Association for the Advancement of Science, 1872. 8vo.
- From the EDITOR.—Archiv für Anthropologie. Sechster Band. Erstes und Zweites Vierteljahrsheft, 1873. 4to.
- From the EDITOR.—Cosmos di Guido Cora. No. III, IV. 1873. 4to.
- From the SOCIETY.—Schriften der Königlichen Physikalisch-ökonomischen Gesellschaft zu Königsberg. Dreiz. Jah. 1872.
- From the INSTITUTION.—Journal of the United Service Institution of Plymouth. Vol. I, No. 2.
- From the SOCIETY.—Transactions of the Geological Society of Glasgow. Vol. IV, Part 2.
- From the ASSOCIATION.—Journal of the East India Association. Vol. VII, No. 2.
- From the HUNGARIAN ACADEMY.—Evkonyvei, XII, 1, darab XIII, 1-9 darab. 4to. Természettudományok Ertekezések, 3-8 szám. 8vo. Ertesítője, 1869, 9-20; 1870, 1-18; 1871, 1-17; and 1872, 1-8 szám. 8vo. Matematikai Ertekezések, 1870, 5; 1871, 7-11; and 1872, 1, szám. 8vo. Almanach, 1870-1-2. Archæologiai Közlemények Kotet, VII, füzet 1, 2, and 3. Monumenta Hungariae Historica, 33-9. Magyar Történelmi, Tár XIV-XVIII Kotet. Statistikai és nemzetgazdasági Közlemények, V 2, VI 1 and 2, VII 1 and 2, VIII 1 and 2 füzet. Budapesta szemel, XLIII-IV. Török-magyarokori történelmi emlékek, IV-VII kötet. Rupp Magyarország Helyrajzi Története, 1 and 2 fele. Archivum Rákócziánium, I kötet. Archæologiai Bizottsága, I kötet, resz II. Történettudományi Ertekezések, 8-12 szám. Történeti, ditto, 1 and 2 szám.
- From Dr. PAUL BROCA.—Du Prognathisme Alveolo-sous-nasal; Du Craniophore du Crane; Du Craniophore Instrument a mesurer les projections du Crane. By Paul Topinard. 8vo.
- From the SOCIETY.—Journal of the North China Branch of the Royal Asiatic Society, No. 7, 1871-2. Catalogue of Library, ditto, 1872. 8vo.
- From the AUTHOR.—L'Age de Pierre et la classification Préhistorique d'après les sources Egyptiennes. By M. Adrien Arcelin. 8vo.
- From the GOVERNMENT OF INDIA.—The People of India. Vols. 5 and 6. 4to.
- From the AUTHOR.—A Phrenologist among the Todas. By Colonel W. E. Marshall. 8vo.
- From Sir GEORGE CAMPBELL.—Descriptive Ethnology of Bengal (Illustrated). By Colonel E. T. Dalton, C.S.I. Fol.
- From the SOCIETY.—Journal of the Royal Geological Society of Ireland. Vol. III, Part 3. 8vo.
- From the INDIA OFFICE.—The Census of the Town of Madras, 1871. 4to.
- From the SOCIETY.—Transactions of the Society of Biblical Archaeology. Vol. II, Part 1. 8vo.
- From the AUTHOR.—Tempi Preistorici-Catalogo. No. 1. By Igino Cocchi. 8vo.

- From the Rev. W. HARPLEY.—Report and Transactions of the Devonshire Association. Vol. VI, Part 1, 1873. 8vo.
 From Major S. R. I. OWEN.—Report of the Committee of the Dialectical Society : Scepticism and Spiritualism. 8vo.
 From CLIFFORD SMITH, Esq.—Spiritualism answered by Science. By Edward Cox, Serj.-at-Law. 8vo.
 From A. M. KUHN.—*Zeitschrift für Ethnologie*, fünfte Jahrgang, 1873. 8vo.
 From the EDITOR.—*Nature* (to date) 4to.

FOR THE MUSEUM.

- From E. C. REED, Esq.—Two Casts of Wooden Tablets with hieroglyphics found in Easter Island.

Mr. GALTON, F.R.S., submitted a proposal, which had received the sanction of the Council, for obtaining anthropological statistics from schools, etc., as follows :

PROPOSAL to APPLY for ANTHROPOLOGICAL STATISTICS from SCHOOLS. By FRANCIS GALTON, F.R.S.

NOTWITHSTANDING the many efforts made by statisticians, materials do not yet exist from which the physical qualities of the British people may be deduced with such precision as is needed for various theoretical inquiries. We do not know whether the general physique of the nation remains year after year at the same level, or whether it is distinctly deteriorating or advancing in any respects. Still less are we able to ascertain how we stand at this moment in comparison with other nations, because the necessary statistical facts are, speaking generally, as deficient with them as with ourselves.

Yet an important part of this information seems easy of acquirement, if it be sought for in the right direction and not on too large a scale. My object in these short remarks is to point out a method by which I believe the Anthropological Institute might successfully promote the collection of very important materials, and be enabled to publish general results of high value.

The Anthropological Institute could never undertake to deal with individual cases in the way that the census does ; but it might deal with the authorities of a moderate number of homogeneous societies, each representing a well-defined class, if such could be found, who would undertake the collection and classification of their own statistics. Then, by referring to the census, we should learn the proportion which these several classes bear to the entire nation, and be enabled to combine

the returns in that proportion, so as to obtain figures true for the kingdom at large.

Homogeneous groups of boys, girls, and youths already exist in several large schools, under conditions which offer extraordinary facilities for obtaining the required statistics. The masters are trustworthy and intelligent in no common degree; they are in habitual face to face communication with every pupil; and the general organisation of schools is in every way favourable to collecting full and accurate statistics. As different grades of schools represent different orders of the community, their statistics, combined on the principle already explained, ought to give an excellent picture of the younger portion of the British nation. In these short remarks I shall dwell exclusively upon schools, because I believe their authorities might be induced, in not a few instances, to co-operate heartily and with great intelligence; and if they did so, the object of the inquiry and the value of the results would become very generally appreciated. The boys when they grow up into men would retain favourable recollections of the whole procedure, and application might then be made to Universities, Factories, and other large bodies of adults, with greater probability than at present of obtaining the required information.

I suppose the authorities at each school not only to make the necessary measurements, but also to classify them, according to a form previously agreed upon, and common to all, in order that the results from the different schools may be combined together by a no more difficult process than that of simple addition.

I will now submit for consideration, suggestion, and discussion, a plan as to the specific inquiries to be made and the form in which the returns should be sent to us.

Height.—The returns I propose we should ask for, relating to height, would be of the following character.

Returns from School.

TABLE, showing the number of boys in School of the various degrees of height, classified according to their ages.

HEIGHT (WITHOUT SHOES).		YEARS OF AGE ON THE LAST BIRTHDAY.							
Above.	Under.	ETC.	9	10	11	12	13	14	ETC.
Etc.	Etc.								
5 ft. 1 in.	5 ft. 2 in.								
5 ft. 2 in.	5 ft. 3 in.								
5 ft. 3 in.	5 ft. 4 in.								
Etc.	Etc.								

When we had received returns from a sufficient number of schools, we should sort them into separate groups, and publish the total results of each group. I should deprecate printing the returns of the schools separately, with their names attached, because it would give the appearance of a comparison of the schools, as to which turned out the best developed boys. It is not within our province to do this, and any suspicion that it might be done would foster a tendency to insert doubtful cases in the higher class. What I propose is, to treat the returns, so far as we are concerned, as confidential; to group the schools in natural classes; and to publish aggregate returns in percentages. Thus—schools A, B, C, etc., would be shown to give such and such general results. Of course, the schools could make any other use they pleased of their own statistics.

It will be observed that the figures in the above schedule would not only give us the information we primarily sought, but they would also give us the law of growth in different classes, both in town and in country. This is known to vary exceedingly under different conditions, but exact numerical determinations have yet to be established.

Weight is the second requirement. Its importance in estimating the physique of a nation is even greater than that of height. Taken in conjunction with the latter, it shows in what degree the different classes vary in bulk of frame and general robustness. The returns would refer to the weight of the boy in the dress ordinarily worn in-doors, and they would be classified in exactly the same way as those of height; that is to say, in classes differing each from its predecessor by equal degrees. As the weights furnished with the various forms of large scales commonly in use in England, are adapted to stones of 14 lbs., I should suggest that the above-mentioned degrees be in half stones. Thus—above 6 stones and under $6\frac{1}{2}$ stones; above $6\frac{1}{2}$ stones and under 7 stones, etc.

Thus, there are three subjects of statistical record which I propose on the ground of their being of primary importance.—1. Age, which runs through both the other groups; 2. Height; 3. Weight. It does not seem unreasonable to hope that returns of these might be obtained through the agency of the Anthropological Institute from many large schools of every well-defined grade, condition of residence, and class of society.

It seems to me better not to speak at present of the attractive and numerous problems that might be solved by a wider range of inquiry; because, if we confine the attention of those we ask to few and simple questions, we are far more likely to have them well and thoroughly answered, than if we had issued a more ambitious programme. We shall soon learn the amount

and value of the co-operation we may rely upon, and can arrange our future proceedings accordingly.

DISCUSSION.

Mr. SERJEANT COX said he believed that Quetelet, in his recent work, had made an extensive and valuable collection of statistics of the kind suggested by Mr. Galton, which would form a basis for comparison with those proposed to be collected by the institute. Some hints might be taken from his book as to the facts most desirable to be obtained.

Sir DUNCAN GIBB remarked, that, unless the inquiries suggested in Mr. Galton's paper, were extended to the schools throughout the entire country, they would have no reliable value as statistics. To select a few schools only, in particular places, as he proposed, would be useless for the purposes of comparison as relating to the entire youthful scholastic population. There could be no doubt whatever, of the value of the information to be derived in its bearing upon the physical development of the English people generally, and it should not be limited nor restricted in the mode adopted to obtain it, and he, the speaker, did not see that there would be any material difficulty in obtaining it, when the intelligence and co-operation of the masters of the schools was frankly appealed to.

Mr. GALTON explained, that it was his desire to obtain statistics from schools of all description, as public schools, middle class schools, and others, down to those of pauper children.

The following paper was read by the author:

EXPLORATIONS amongst ANCIENT BURIAL GROUNDS (*chiefly on the sea-coast valleys*) of PERU. Part I. By THOMAS J. HUTCHINSON, F.R.G.S., F.R.S.L., Her Majesty's Consul at Callao.

MR. PRESIDENT AND GENTLEMEN,—I am almost afraid that the number of skulls which—originally intended for the museum of your Institute—I have been able to remit from Peru during the last and previous year, may lead you to expect a more perfect report upon them than it is in my power to give. In fact, I feel myself obliged to premise by the plea, although it is a purely personal one, that my visits to ancient Peruvian burial grounds were almost invariably made when I had to be absent from my post for the benefit of my health in seeking change of air.

In my rambles amongst the Golgothas of which we have some illustrations here to-night, I only tried to act in the character of a navvy, partly of a craniological navvy (if the term be admissible), to gather plant, clear track, and prepare the earth-

works for laying down the rails. This last has, however, been so well done by your President, Professor Busk, and by my friend, Dr. Barnard Davis, that no further apology of mine is necessary. The chief object of my paper this evening is, therefore, to relate to you the relative positions in which the skulls, with their accompaniments, were obtained by me.

I was not long in Peru without finding out two very strong points of belief amongst its people. The first is that every bit of an old wall, heap of gravel, mound of earth, large or small cluster of ancient ruins of any kind, is called a "Huaca". And the second is the equally persistent faith that every Huaca is a "Huaca de los Incas".

The term Huaca (Quichua), and I believe synonymous with Quilpa (Aymara), means "sacred". The title may therefore be considered as applicable to the burying grounds of Ancon, Pasamayo, and other places, where there is no elevation above the ordinary surroundings, as to those of Pando and Ocharán—the large burial mounds in the valley of Huatica. It is never applied to the first mentioned style of graves, but every piece of pottery ware therefrom goes by the generic title of "Huaca". Yet in those as much pains seem to be taken, as in the more ostentatious ones, to bury the dead with perfect reverence. The bodies being placed in what may be known as the squatting position—*i.e.*, of thighs flexed on pelvis and legs drawn up perpendicular with thighs. The faces covered over with cotton flock—sometimes with llama wool—the whole body rolled round with cloth, over which is then enshrouded a mat, and a network cording outside. Nuts that may have been talismans, nets for fishing, needles for weaving, heads of Indian corn, agricultural implements (chiefly copper), buttons, sewing-needles, tweezers, and so forth, are included in the rolling. With the men I generally found slings; and with the women almost invariably needles and buttons, frequently some woollen thread and a distaff. Large quantities of crockery ware are put in with many bodies, with others less, and with some none at all. The custom mentioned by various writers of burying the gold and silver first, then the crockery ware, and over that the body, I have not found of general adoption; but I have observed more than once the pottery ware above the bodies.

The burial mounds in the sea-coast valleys of Peru are not always of the same shape; they are as often oblong as irregular, and as frequently of sugar-loaf formation as of the two first mentioned. But although I have examined a considerable number, I have seen none with "galleries running at right angles with each other", as Prescott describes them.* When of

* "History of Conquest of Peru," page 37.

the elongated form, I have generally found a curve in the centre or at either end. At Pacha-Cámac, as well as at Pando, between Callao and Lima, the model of the general mass is crescentic or semi-lunar.

My voyage to Peru having been effected through the straits of Magellan, I had, of course, to make tracks from south to north. The first place in Peruvian territory at which we touched was Arica. Our short stay here did not permit me to make any exploration, but I was told that one incident of the earthquake of August 1868, three years previous, and of which the town still shewed palpable signs, was the heaving up in some places not far from the city of a number of bodies, which were in the squatting position that I have already described. They were covered, as usual, with cloth. Our Vice-Consul at Callao, Mr. Bracey R. Wilson, who had resided many years at Arica, subsequently shewed me bits of cloth, fragments of net, heads of Indian corn, wooden knitting needles for making nets, parcels of amber-looking globules that are known to be eyes of cuttle-fish, and all of the accessories of burial that had been exhumed with bodies here, similar to those that were subsequently turned out a thousand miles further north. The eyes of the fish mentioned I have not seen elsewhere than at Arica, except at Pacha-Cámac, where they are put into the wooden effigies of the face; and these two facts seem to me symbolical of fish-worship. On the small island in front of Arica, ruins still exist, indicating the presence of probably a Pagan idol-house (the term temple applied to such a thing jars on my ear). At all events, many bodies have been found here; and they are constantly being exhumed through the search for treasure all through the Arica country to Tacna.*

From Arica, passing up the coast by Ilo (Eelo), Mollendo, and Islay, we come to the Chincha Islands and Pisco. Of the three first mentioned places I visited only one, that is Mollendo; and I was at the time in such a state of bad health, being on my way to Arequipa, that I had no energy for anything. Up the line of railway hence, and not far from the track, though more than three quarters of the distance from Mollendo to Arequipa, I am told there are rock engravings, described to me by Mr. Ewing as similar in characters to those I afterwards saw on the Pacasmayo line of railway at the Yonan pass, over the Jejetepeque river.

The Chincha Islands may not be excluded from the category of burial grounds. For although bodies have not (to my knowledge) been found there, we have had excavated from a depth of

* Mr. Bollaert in his "*Antiquities of Peru*," gives an interesting account of the bodies in a sitting position, found when excavating the Morso or headland of Arica, p. 151.

sixty feet in the guano regalia of the old kings, stone and wooden idols, as well as, now and then, some pieces of gold, which I have been told the Chinese labourers looted amongst themselves. It is a difficult matter to guess at the age of these things.

In the neighbourhood of Pisco are large mounds, some three or four, but between this and the interior town of Ica (or Eeca as Senor Larabure y Unanue of Lima spells it), a distance of forty-eight miles, I saw none. From Pisco, coastwise to Cerro Azul, through Tambo de Mora, Chincha Alta, and the Canëta valleys, the country is well marked with ruins. I paid a visit to Ica by rail, and at the hacienda of Senor Don Enrique Martinez hired two men to dig for a few hours in one of those gentle slopes, which a stranger would never recognise as a burial ground. But all of these are known to the natives. We found in one grave several small saucer-like pieces of very ordinary pottery; with them some bones of children and rags of cloth, which crumbled into ashes as soon as they came in contact with the external atmosphere. In another place, and at a depth of about four feet from where the hard digging begun, where a foot or eighteen inches of soft sand had to be shoveled off, the diggers came to three diminutive crocks or urns that were broken by the spade before we perceived they contained bones and cloth. This made us more cautious with a large urn, which after nearly half an hour's delicate manipulation was exhumed, and found to contain the body of a full-grown man or woman disarticulated, the skull being placed uppermost, and part of the ashes in the urn being as of burned cloth. The urn was not more than two feet high, although with mouth large enough to admit a skull. In sending it home to Dr. Barnard Davis I unfortunately packed it with sawdust in a large case together with other pottery; and coming as it did by one of the Pacific steamers to Liverpool, it was smashed into pieces before reaching its destination. My chief interest in that urn arises from the facts, that when I was in the province of Santiago del Estero, in the Argentine Republic, in the year 1862,* on an exploring expedition in search of wild cotton (on which I was sent by Earl Russell), I saw an exactly similar one at the Bracho, in possession of General Don Antonino Taboada. This latter had been dug up in the last-named place with the bones of a man in it. Now the residents of the Bracho, which is one of the Taboada forts on the right bank of the Salado river, and, it may be seen, not only to the east of the Andes, but with a large portion of intervening Argentine territory to separate them from these lofty

* Vide author's "Buenos Ayres and Argentine Gleanings." Stanford, London, 1865, p. 175.

barriers, did not, at the time I was there, exceed three hundred in number; of whom only a few could speak a word of Spanish, their language being the Quichua, the chief dialect, it may be needless to add, of the ancient Peruvians. It is pretty certain, too, that at the present day those who speak Quichua, in Peru, and those who talk it on the bank of the Salado, know nothing of the existence of each other, although the burial ceremonies of their ancestors have been the same. In fact, of Quichua being spoken to-day in Peru we have no evidence—at least along the sea-coast valleys. At Ica, where we are now, is reported the first invasion of the Incas, coming through Nanasca,* and going on to the Pisco valley.

From one of the burial mounds (Huacas) at Ica was taken out a few years ago a work of art made of silver, and of which I have here a sketch. It was lent to me for the purpose from the magnificent private collection of Peruvian Archæology in possession of Senor Don Miceno Espantosa at Lima. In placing this side by side with a work of similar model that was given to me by Mr. Blackwood of Trujillo, and taken out of a burial mound at Chanchan, about five to six hundred miles further north, it may be presumed that the ancient Peruvians were as voluntarily persistent in their arts as they were impassively in the types of their skulls, according to the examinations made by Professor Busk.

This valley of Pisco I believe to be part of the ancient valleys of Chinchas; of which Garcilasso de la Vega tells us, the natives at the time of the Inca invasion confessed they were not the original inhabitants. I sometimes find myself speculating as to whether the burial mounds here, with the large fortress of Canchari, the palace of Chuqui Manca, Hervæ, and other ruins in the valleys of Huarco and Lunahuanac, are not relics of the people who lived there before the Yuncas. And one can scarcely wonder, when looking at these matters dug up, at what Mr. Baldwin recently observed of the aboriginal South American people being the oldest on these continents.

Through the Cañete valley—so styled from its extensive sugarcane establishments—I rode a good deal amongst its ruins; for I stopped a week here at one of the haciendas of Mr. Henry Smayne of Lima. The southern side of the hill, called the Cerro del Oro—it is believed the Spaniards had good reason to give it this name on account of the large amount of gold they found there—is literally white with skulls and bones; and we see evidences of excavations everywhere. One lot of the skulls sent home by me last year was exhumed at this place. In one of the burial mounds of this valley was found, some few

* Vide "*Commentarios Reales de Garcilasso Inca de la Vega*," lib. vi, chap. xvii, p. 191.

years back, a gypsum or *terra cotta* mask, exactly similar in shape to that of which there is a drawing, published in the report of the Smithsonian Institute as having been discovered in making excavations for the St. Lawrence Canal, during Mr. Squier's explorations in the State of New York. Out of a burial ground in Cañete valley was likewise disinterred a Bosina or shell horn, with excellent art work of leather plaiting, almost as fine as lace, to hold it up by. It had small bunches of human hair on the end, with a couple of rings of ivory. This was used amongst the ancient Indians to announce the approach to the gates of a town of any individual of consequence. Some of the pottery were taken from burial mounds here, as well as the wooden idols, shew the enlarged ear-lobes, which were the subject of a paper before your society, during the last year, by Mr. Harrison.

By the map it may be observed that, in a geographical sequence, the next place I have to notice is the far-famed Pacha-Cámac. Here on the highest plateau is the so-called Temple of the Sun; and at a height of at least three to four hundred feet from the base of an immense mound, on the top of which the building is erected, I dug out three skulls of as true an Indian type as any found elsewhere. All of this, including the mound on which the edifice is constructed, appears the work of human hands. On the second plateau from the top, it may be rather designated a ledge or terrace, I noted a gable end wall, blackened over with soot—suggesting sacrificial fires; and round the corner from this, facing the north, were two niches in the wall, each two feet square and about a foot deep, that I inferred were intended for containing idols. The size of the structure at Pacha-Cámac, whatever it may have been, was something colossal. Of this, a faint idea may be entertained by the fact that the topmost plateau, on which we walked, was tracked by Mr. J. B. Steer, a distinguished young American naturalist who was with us, and calculated to be a superficies of ten acres. Twelve feet below the summit he tracked a terrace of two hundred and forty-eight paces (or so many yards) in length. But the corresponding parallel to this was only one hundred and fifty yards long, so broken, wrecked, and ruinous were all the remains of the building.

Portion of the walls of this enormous structure is made of adobe (sun-dried bricks) to the thickness of about half a yard on the outside, and the inside of about the same size is built of stone. In another part, the stone formation is outside and the adobe within. Where the former wall is of stone, it is of a blood-red colour; a very light thin paint it is, as all my endeavours to scrape some off only brought the slight

plaster, which appeared to lose its colour the moment it was detached. On the north side are five terraces at the heights of ten or twelve feet above one another; and on the west, we find a number of alcoves or lofty niches, designed on this sketch which I have here. The whole structure of stone is built on a mound of earth; but the latter is as high as the top of the walls, an immense pyramid, evidently of artificial formation. If, therefore, the building on the top be considered the temple of the sun, it was constructed on the summit of a huge burial mound or huaca. And if it were a place for Inca worship, who filled it up with clay, as it is now, from base to summit? Certainly not the sun-worshippers themselves, none of whom appear to have been here when Pizarro came. And equally certain the Spanish conquerors did not do it, as they set about exploring for gold, which implies excavating instead of filling in.

Examining these ruins, I find three different styles of graves, *i.e.*, different as regards their architecture. Those nearest to the top were lined in stone and plastered with clay; those on the centre plateau and facing the north were constructed with sundried bricks; and those at the base were in the plain earth. We could not do much amongst the first, our time being limited; but we saw the fashion of those graves that had previously been rifled. Our six to eight hours digging by Mr. Steer, Mr. George Wilson of Callao, and half a dozen Chinamen lent by Senor Don Vicente Silva of the San Pedro hacienda close by, brought out several bodies rolled up in cloth, and tied over with rope; together with accessories of wooden effigies of human faces, bundles of coca leaf on the head, large lobed ear on a water jar, flute of sheepshank, and pipe of deer's horn. The coca was bound in a tight parcel on the top of the head, in more than one case over-topped by the wooden effigy. Likewise we collected what appear to be small aprons, such as Garcilasso de la Vega tells us were worn only by married ladies, tiny bags of red ochre, like cinnabar. Slings were obtained here also, as well as not a few skulls having indubitable signs of the action of sling-stones on them; skulls with the sutures in the frontal bones, the same as I had previously picked up at Pasamayo, about thirty miles north of Lima.

Through the town, over which I rode with Lord Cochrane, who was of our party, skulls were scattered about inside the walls of what might have been houses in old times. And although Mr. John Schumaker of Valparaiso, another of my fellow explorers, took excellent sketches of the most interesting points, I left Pacha-Camac, without being able to realise that there ever was a temple of the sun, or a house of the virgins of the Inca religion there. I could not avoid feeling myself of accord with Mr. George Smith, when writing of the ruins

of Babylon and Boruppa in one of his letters to the *Daily Telegraph*:—"I must confess myself unable to make out the positions of the various buildings, mentioned, by ancient authors. In modern times speculation has spent its strength in determining the sites; but now I have seen the ruins themselves, I am convinced that some and perhaps the most of these speculations are wide of the mark. Nothing can be said upon these points till the ground is properly excavated." These experiences of Mr. Smith are perfectly applicable to all the Peruvian ruins that I have seen. It is not speculation here that we have to combat with so much as the dogmatic assertions that anything worth taking notice of in Peru was done by the Incas. For nearly every visitor goes to Pacha-Cámac with the belief that he is to see the ruins of a temple of the sun; instead of which he has to view a conglomerate mass of ruined walls filled up with clay, and nearly as great in extent as the largest of the pyramids in Egypt. Although not believing it to be a temple of the sun, I have a faith that it abounds in craniological and anthropological wealth well worthy of the trouble and expense of excavation.

Journeying onwards not more than eighteen to twenty miles north of Pacha-Cámac, and in an angle formed by the Pacific Ocean as a base, with Chorillos, Lima, and Calláo, constituting the angular points, we find the valley of Huatica, the site of the ancient temple of the God Rimac, who was the speaking Deity or the Delphic Oracle at the time of Pacha-Cámac, being worshipped as the creator of all things (as the title represents). In this valley of Huatica, which actually separates the city of Lima from the Pacific Ocean, with a distance of not more than five to six miles between, we find still dozens of ruins, believed to be of temples, idol houses, castles, fortresses, burial mounds, walls, and towns. I have been several times amongst them, but I shall bring only three of these under your notice. They are the chief Huacas or burial mounds. 1. The Huaca of Pando; 2. The Huaca of Pan de Azucar (sugar loaf), its Indian name not known; 3. The Huaca of Ocharán, commonly called Juliana, and recognised by a small wooden house* on the top of it, not far from Mira Flores on the railway track from Lima to Chorillos.

The Huacas of Pando, on the chaera or farm of Senor Eugenio Osma of Lima, are passed every hour in the day by trains between that city and Calláo. There are three large ones, with a junction of several smaller mounds that seem to have been put up in a hurry; but all of a continuous structure, and having

* This wooden house was erected to shelter the man placed here to watch the grape vines planted about its base.

a crescentic form facing the south. The centre one was tracked and measured for me by Mr. Steer. It has a height of one hundred and eight to one hundred and ten feet. At the western side is a square plateau about twenty-two to twenty-four feet high, which measured forty-eight yards in each of two separate elevations, one six feet above the other; and these measurements being the same from north to south, as from east to west; in fact a square of ninety-six yards. Then mounting to the top he tracked (or stepped it) from two hundred and seventy-eight to two hundred and eighty yards long, and including the part where the plateau already spoken of exists, about one hundred and ninety to one hundred and ninety-two yards in breadth; that is, ninety-six at the summit and ninety-six of the plateau below.

On making these calculations, Mr. Steer directed my attention to the remarkable coincidence of these measurements approximating to multiples of twelve. It was not an easy matter, we found, in such disintegration of antique earth-building, where adobes and clay form a medley, to make a square measurement at all. These, however, were approached as close as possible to the edges, although in nearly all the termini they were broken away.

From the highest plateau, and stepping lengthways, there are eight gradations of declivity, each from one to two yards lower than its neighbour. They gave measurements.

1st plateau.....	97 yards in length.		
2nd " 	25	"	"
3rd " 	24	"	"
4th " 	12	"	"
5th " 	23	"	"
6th " 	25	"	"
7th " 	35	"	"
8th " 	37	"	"

278 yards whole length or twenty-three multiples of twelve, with two yards over.

In the transverse measurement, besides the ninety-six yards on summit, corresponding with ninety-six at the base already mentioned, we found three different altitudes crossways; the two lowest being at the sides, and the highest in the centre. The first on the south side, and lower down by about two or three yards than the middle, measured sixteen to eighteen yards across; the second, fifty-eight to sixty yards; and the third, twenty-one to twenty-two, an united measurement of the twelve multiple again represented by ninety-six.

The line of this mound in its length trends down from west (highest point) to east (lowest). Another of the lot is from north to south. They are of truncated pyramidal form; and Mr. Steer, estimating it at an angle of forty-five degrees, as well as calculating the base of the largest to be one hundred feet broader than the summit, computed the contents of this single mound to be 14,641,820 cubic feet of material.

Admitting this estimate to be approximately correct, my admiration of the work will not be wondered at, when going to a part where partial excavation had been made, I took from thence two adobes or sun-dried bricks, one of which Mr. Steer brought with him, and the other is with my collections, on its way to England. Each measured six inches long, four inches wide, and two and a half inches thick. More wonderful still it is that many of these adobes, I believe the one that I have among the number, bear on them the marks of fingers; thus proving that they were the work of human hands.

In many points of these mounds we see skulls, thigh, arm, and rib bones cropping up; and a partial excavation here shewed us the same style of burial as is observed elsewhere. Between the Huacas of Pando and the next burial mound, that of the Pan de Azucar on the chacra or farm of Senor Paz Soldan of Lima,* the country is full of ruins. Chiefest amongst these are the remains of the old fortresses or castles of Arambolu (called now Huaca de la Campana on account of some farcical story about a bell which the Devil took possession of there) and Huatillee (which is entitled San Miguel). The first of these I believe, from a little volume I found in Lima, to have been commanded by the eldest son of Cuys-Mancu, the last king of the Yuncas, whose name was Huachikee.

The ruins of the old city of Huatica are passed by in this direction. So likewise are those of the temple of the god Rimac, with its inclosure of forty-nine acres in superficie, shut in by double walls, of which there are still remains to the height of fifteen feet. But as my business is amongst the burial grounds, we pass on to Pan de Azucar Huaca, which is about a mile interior to the Mira Flores station on the Lima and Chorillos railway. Previous to my visit, indeed I believe a few years ago, this place had been partially explored by Senor Don Antonio Raimondi,† one of the most eminent scientists in Peru. When speaking to him one day of my desire to examine this amongst other places, he told me that his explorations of the Pan de Azucar resulted in finding only articles of a very common kind, as fisherman's nets and very coarse pottery; that the

* The Chacra of Conde San Isidoro.

† Professor of Natural History at the Facultad de Medicina in Lima.

corpses in this mound were all buried with a layer of clay over a layer of bodies; and that he believed the greater portion of the Huatica valley interments in mounds were similar. I ascertained subsequently that, as far as regarded Pan de Azucar, this was nearly correct, but not so in the Huacas of Pando and Ocharán. Mr. Steer and Mr. George Wilson again accompanied me with pick-axe and spade. Our four to five hours digging resulted in finding this to be a mass of bodies, with pieces of cloth, slings, nets, and pottery ware that did not seem to be so very ordinary, as I have a specimen of it here. We dug out very rude misshaped masses of adobe, forming divisions between the burial places; Mr. Steer calculated it to be sixty feet high at the central point, on which a cross was placed. The broadest measurement at the base was from 82 to 83 yards, and the length 130 to 131 yards, again approaching the duodecimal multiple. Estimating its average height, as it was of sloping form, at 30 feet, he calculated it as 3,736,800 cubic feet; and this is all a mass of human bodies, with their funeral accessories kept *in situ* by clay-mortar or clay-plaster. Here I found a greater quantity, than elsewhere, of slings, and amongst other things a bit of braided hair.

Half a mile farther on, and proceeding towards the Mira Flores railway station, we come to the immense Huaca of Juliana, the ancient name of which I learned from an old man there is Ocharán. I got a sketch of this taken at the distance of a mile; but as the little house on the top seemed like a fly on the back of an elephant, I asked the artist, Señor Zabala, to leave it out. The trending of this in its length is from south to north; it presents less of the curvature or crescentic shape than is represented in the mounds of Pacha-Cámac and Pando. To its eastern side, but not connected with the main structure, are three large squares of rubble stones, about ten to twelve feet above the ordinary road height. These (the squares) are perfectly quadrilateral and duodecimal, measuring from 96 to 98 yards each way. After tracking them, Mr. Steer mounted to the top, which he had previously computed to be 95 feet on the highest point. There are but six declivities or terraces here; although they are much larger than those of Pando, as shewn by the following:—

1st plateau on summit...	90 yards long by 52 wide.
2nd " " ...	130 " " 60 "
3rd " " ...	38 " " 52 "
4th " " ...	45 " " 54 "
5th " " ...	40 " " 59 "
6th " " ...	85 " " 86 "

428 yards multiplied by
3

give 1284 feet, another multiple of 12 in total measurement.

Although many of the minor measurements do not approximate to twelve as much as they do at Pando, this may be accounted for by the fact of its having been subjected to a more palpable disintegration of its architecture. For in the year 1854 the artillery of General Echenique was stationed on this Huaca, previous to a fight with the troops of General Castillos.

Like the building at Pando, it is chiefly composed of adobes, one of which I sent home, but it is still *en route*. The most wonderful thing at Ocharán is what remains of a double wall by which it was inclosed, and which Mr. Steer tracked as much as he could. This was found to extend 816 yards from north to south, and 700 yards from west to east, shewing an inclosure of 571,200 square yards or 117 acres. The ends of the walls at either of these lengthways are not well defined, so that they may have extended further.

May I not ask here what are the great squares mentioned by Mr. Markham at the old Chimoo town of Chan-Chan—"squares of 276 yards one way and 160 the other"—when compared to this? Along the whole course of the Huatica valley, from Callao to Chorillos, a distance in a straight line of ten miles, and round by Lima about sixteen, there is no natural elevation that could be made available as a sub-structure for these colossal burial mounds. I have examined the entire country and find nothing of the kind. It is perfectly flat, save in the gradual rise of incline from Callao to Lima. Therefore it calls up not only wonder but admiration of the labour required to collect the earth; of the number of hands needed to fashion the bricks; of the time spent in constructing the great works. And I confess myself, not without a deep reverence for the pious and devoted spirit—Pagan though it was—evinced in the care and respect shewn to their dead parents, wives, husbands, sisters, brothers, fathers, and mothers in the common grave, where "their wicked ceased from troubling and their weary were at rest."

DISCUSSION.

Mr. J. RANDOLPH CLAY said: During my long residence in Lima, I was greatly interested in the study of Peruvian Antiquities, and made a valuable collection of pottery and images, from the huacos, or mounds, in different parts of the country. Several large ones are situated in the valley of Lima; the most interesting of which, are the Huaco de Pando, near the road from Lima to Callao, and another,

between Chorrillos and the sugar-hacienda of Villa. The valley of Lima was a penal settlement before and during the dynasty of the Incas ; and the curiosities found in the huacos, near the city, and at Ancon, are coarse and show very primitive knowledge of pottery. The ancient Peruvians buried their dead in a sitting posture, with the legs drawn up, and the arms across the chest, and bound up in cotton cloth. Those buried in huacos, were probably a better class of people, as there are other cemeteries where the bodies were interred in the sand, without any memorial to mark the spot. The dead were not embalmed after the manner of the Egyptians ; the mummies, however, are found in a remarkable state of preservation, many with the hair unchanged, through the dryness of the atmosphere and the saltpetre in the ground.

An exploration of the burial-grounds in the sea-coast valleys of Peru, would give but a faint idea of the interesting vases, pottery, images in gold and silver and filigree, found in the huacos in the environs of Cuzco, Cajamarca, Chachapoyas, Trujillo, etc. Many of the vases are scarcely inferior to the Etruscan, and there is an ancient porphyry one, which will compare, in sculpture, with any of the kind in the museums of Europe. The golden stags, sheaves of corn and plants, found by the Spaniards in the Inca's garden at Cuzco, are historical ; and there are probably others of the same description, in the caves and huacos in the department of Cuzco and elsewhere, known only to Indians who will not reveal them. The Peruvians often hid such treasures in the ground (*entieros*), and several have been discovered since the Spanish Conquest. In 1576, an Indian showed one near Trujillo, called the "*Peje chico*" (*little fish*), to a white "*Compadre*" (godfather to his child), which contained a mass of gold, worth upwards of a million of dollars. In 1804, an Indian *compadre* shewed Senor Villanueva, near Cajamarca, a roll of gold, buried at a depth of four or five feet, under a large flat stone, which contained a number of tiny jugs of filigree gold, and twelve filigree gold butterflies so exquisitely made, that at a ball given by Villanueva, they were blown up, and floated in the air over the heads of the guests.

There is in my collection of Peruvian Antiquities, an oval, silver frame with a wreath of roses of the most perfect workmanship and beautiful design ; also specimens of pottery which show the gradual progress made by the Peruvians in ceramic art. Some are probably of a date many centuries before the Incas ; others, of a later period, as, for instance, a tortoise so accurately modelled, that, at a short distance, its marked resemblance to the natural tortoise deceives every one. I have several quipus, or string with knots ; so ingeniously arranged that despatches and messages were sent with them from Cuzco, by Indian runners, stationed at relays, throughout the empire. Fish, for the Inca's table, were carried in the same way from the sea to Cuzco. Among my silver and gold images, there is one with double arms and legs representing, apparently, a Deity of plenty, and a fine statuette, in silver, of a woman, drawn up many years ago, in a fisherman's net, from the bottom of Lake Titicacá : and an eques-

trian statuette in gold (the horse and man in one piece), supposed to have been made soon after Pizarro entered Peru. I have some interesting curiosities from a huaco near Pativilca. One, is a dagger, like those used by some of the South-sea Islanders, with a carved wooden hilt and guard and blade armed, on both sides, with a row of shark's teeth; and a vase, on which are figured birds resembling the Egyptian Ibis; a vase, from a huaco, near Cuzco, has a cross on it like the St. Andrew's. With some of the mummies were found dark red ears of maize, distaffs, with cotton thread upon them, rolls of cotton thread and variegated woven bands, the colours of which are almost as bright as new ones.

The ruins of canals, roads and aqueducts in Peru, are of great extent and interest, and those of the aqueduct, through which water was conveyed across the Andes at an elevation of 8,000 feet, can still be traced from near Lima, and prove that the engineers of the Incas possessed good professional knowledge. The remains of the temple of Pachecamac* near Lurin, those of Cajamarquilla three or four leagues from Lima, and the ruins of the city of the Grand Chimoo, near Huanchaco, extending for six or seven miles along the coast, were probably inhabited centuries before the Spanish Conquest. Judging from the difference in the countenances and statures of the coast-Indians ("*Cholos*"), those of the Cordilleras ("*cerranos*"), and those of Puno, it is possible that the present Indian population of Peru are the descendants of several homogeneous races. I am confirmed in this opinion, by information given me by Don Francisco Odeaga, a gentleman residing near Lambayeque, relating to the inhabitants of the village of "*Eten*," situated on the coast, in Lat. $6^{\circ} 57'$ south; and long. $82^{\circ} 14' 20''$ west. They are fishermen whose manners, customs and language are peculiar to them. They did not intermarry with the people of the surrounding country, had little intercourse with them, and permitted strangers to remain only twenty-four hours in their village. Señor Odeaga, at my request, obtained a short vocabulary of their language, which is probably like Chinese, as the coolies imported into Peru could converse with them without difficulty! The words in the vocabulary were translated into Spanish, to which I added an English translation, and gave it to the Ethnological Society of New York; under promise that it should be published in their transactions.

Señor GONZALEZ de la ROSA: Mon petit discours devant la société ayant été entièrement improvisé, je vais, puisque on me l'exige, présenter ici un résumé des quelques idées que je peux me rappeler. Les voici:

Je reconnais l'importance des observations de Mr. Hutchinson et je l'en remercie au nom de mon pays et de la science; mais, sans vouloir aucunement critiquer ses vues, je veux exposer quelques unes à moi au rapport de l'archéologie et l'ethnographie du Pérou.

A mon avis, et mettant à présent de côté les caractères physiques, les monuments sont de la plus haute importance pour l'étude des races

* "He who gives light to the universe."

primitives du Pérou. L'architecture, la poterie, les costumes et ustensiles, non moins que la religion, les traditions et le langage, nous fournissent les arguments plus concluants pour la solution du problème ethnologique. Dans ce but, il faut ne plus se borner à faire des descriptions de simple touriste; nous en avons assez, mais nous n'avons que bien peu d'études consciencieuses dans le but d'éclairer la grande question des origines. Ce qu'il nous faut, ce sont des études profondes et comparées sur ces majestueuses traces que nous ont laissées les races indigènes, dont la plus part sont complètement disparues. Les monuments du Pérou ont besoin d'un Michel Ange qui leur dise : — *Parla ! parlez !* racontez nous les traditions, les migrations, les croyances, la vie publique et privée du peuple qui vous a construits. Si nous avions eu de ces *archéologues philosophes*, depuis longtemps aurait disparu le *préjugé qui attribue tout aux Incas*, et on ne douterait plus de la diversité des races, ou au moins, des migrations au Pérou. Il faut, donc, que des travaux sérieux d'archéologie et d'ethnographie parviennent à déraciner l'*Incomanie*, c'est-à-dire, la croyance routinière qui suppose que, le Pérou a été *exclusivement le pays des Incas*, et qu'en dehors d'eux on n'y trouve rien : préjugé pitoyable, comme le serait celui de croire que parce que Berlin est aujourd'hui la capitale de l'Empire allemand il l'a été toujours, et que, par conséquent, il n'y a jamais eu en Allemagne d'autre race que la prussienne. Eh bien, à l'arrivée des espagnols, le *Cuzco* et ses Incas étaient au Pérou ce que Berlin et son roi sont aujourd'hui en Allemagne : "Les Incas ont été, sous tous les rapports, les Prussiens du Pérou."

Quelque remarquable que soit la civilisation des Incas, la vérité et la justice exigent de nous occuper aussi des autres, qui les ont précédés ou ont coexisté avec eux. MM. Hutchinson et Clay en ayant parlé, je citerai seulement l'exemple de la culture *originale* des *Chimus*, dont la capitale était près de Trujillo. Une des preuves que nous avons pour démontrer que cette race est différente de celle des Incas, et d'autres du Pérou, leur langage nous la fournit.

Cette langue n'est plus parlée qu'à Eten et par quelques Indiens des environs, et est tellement ignorée, même par les classes éclairées du Pérou, que le *Nacional* de Lima, de Paz-Soldan, Wiener et bien d'autres, ont pris au sérieux le suivant canard : "les coolies Chinois arrivés à Eten se sont entendus avec les Indiens, en leur parlant le *dialect de Canton*, donc, les deux langues sont sœurs et les Indiens de la côte du Pérou sont originaires de la Chine." Là-dessus je peux déclarer : qu'ayant étudié sérieusement cette langue, jusqu'au point d'en avoir rédigé une grammaire et un vocabulaire, et les ayant comparés avec les meilleures lexicologies Chinoises, spécialement avec le dialecte de Canton, j'en ai conclu qu'il n'y avait pas une telle ressemblance et qu'il ne s'agissait que d'un gros canard. Cela n'empêche pas que la langue du Chimu ressemble plutôt, dans son mécanisme, au Chinois qu'au Quichua et Aymará.

En résumé, et c'est sur quoi j'ai voulu appeler l'attention de l'Institut et des savants consacrés à l'ethnologie Américaine : — 1°. Nous ne devons plus nous borner aux simples descriptions, mais il nous faut

des études profondes et comparatives sur les monuments Péruviens ;—2°. Le résultat de mes recherches la-dessus, est : que la race Inca n'a point été la *seule* ni la *primitive* source de culture au Pérou, mais qu'au contraire il y a eu, avant et durant sa domination, d'autres centres de civilisation ;—3°. La diversité des langues étant une des preuves les plus concluantes en faveur de la diversité de races, nous en avons un remarquable exemple dans la langue de la côte, parlée par les sujets du grand Chimu ;—4°. La langue et la civilisation Chimus présentent des caractères d'antiquité et d'originalité tels, qu'ils méritent d'être étudiés avec autant d'intérêt que celles des Incas.

After a few words from the President, the author briefly replied.

Dr. SIMMS, of New York, exhibited and described the flattened skull of an adult American Indian, from Mameluke Island, Columbia River. He said :

The flat-heads of North America occupy a considerable tract of land along the Columbia River and Puget Sound, also in the south-eastern portion of Victoria Island, and throughout the intervening country. They are especially numerous in Washington Territory, and the south-western part of British Columbia.

The flat-heads are divided into several sub-tribes or bands, as the Sae-lies, the Chenooks, etc., and they use a jargon in which Spanish and French can be distinctly recognised in combination with the aboriginal Indian.

Their habits are peculiar, and some of them very repulsive to the minds of Europeans ; yet of sufficient interest and value to the anthropologist, to warrant us in offering some brief notices.

The great distinguishing characteristic from which these Indians derive their name, is the flatness of the head, which is artificially produced by a process of the most revolting description. Soon after the birth of a child, its head is compressed by binding it up between two wooden boards, or one board and a bag of sand. The planed surface of the wood is applied at the back to the occipital bone of the infant, while the other board or bag of sand, or stone covered with bark is placed against the frontal bone, just above the visual orbits. Both are bound securely and tightly on the soft head, compressing it anteriorly and posteriorly, and thus producing the required flatness in a rapid, and, to the parents, perfectly satisfactory manner. The anatomist need not be told, that in the cranium of a new-born infant the bones are not only soft but separate, their dentiform margins not being united by a suture as they become after a few months. The frontal bone is formed in two distinct portions, neither joined to each other nor to any other bone in the system. Hence the skull may be easily compressed into any form

that may be desired, and the taste of this particular tribe is for the flatness we have described. The pressure being considerable, shortens the head from front to back, and of course increases its width, until the parietal points where the ossification of that bone commences are pushed outwards and rendered wedge-like, the sharp part being in the upper back portion of the cranium. The head is kept under this pressure for the space of from six to nine months, when it is found sufficiently flattened to satisfy the abnormal fancies of beauty which obtain in this tribe, and it never afterwards loses the shape. While the deforming process is going on, the integument becomes surcharged with blood; and consequently the head when released from the bonds to which the tyranny of fashion consigned it, presents a spectacle truly disgusting and revolting to any one who has learned to love the human form as fashioned by the Creator. Strange to tell, the infant undergoing this apparently cruel process, evinces no sensation of pain or suffering. In fact, the children of American Indians seldom or never cry; probably because the nervous system is inherited in a healthy condition.

As the deforming process we have described does not seem to produce acute pain during its continuance, so neither is there any reason to conclude that it occasions any serious injury to the mental faculties.

On the contrary, these flat-heads exhibit considerable acuteness and general intelligence, not falling in this respect behind those who escape the misfortune, or as it is thought, miss the privilege of being made flat-headed. Of the latter class are the half-breeds, who are held in contempt, and not being favoured with this mark of nobility and beauty, grow up with as well formed heads as any other of the North American Indian tribes. The flatness of head seems to be coveted rather as a distinctive honour than a positive beauty. The preference for it is rather aristocratic than æsthetic. They say that in the olden time all the great chiefs and warriors exhibited this form of cranium, and this is their reason for stamping it on their children. It has been stated that only male infants are thus flattened; but this is erroneous. Male and female are alike subjected to the operation.

These flat-head Indians excel in carving, and turn out some very unique and interesting pieces of workmanship, from stone, wood, horn, and ivory. Of the horns of the rocky mountain sheep they make spoons and soup dishes, equal in utility, if not in beauty, to any of European manufacture. They are expert hunters, and in salmon-fishing they have no superiors. They catch large numbers of these fish, and sell each of them, without regard to size, for an English shilling, or as they say "two bits."

They have learned from settlers on the Pacific coast to call an English sixpence "a bit." Like other North American tribes, these Indians are very superstitious. But the only other peculiarity we shall describe, is their manner of disposing of the dead, which is not by burial under ground as is our usage. Mameluke Island, situated in Columbia River, and about two hundred miles from its mouth, is, and has been for many years, occupied as a place of sepulture. It contains from six to ten acres of land which are used in this wise. The Indians split up wood into boards six feet long, one to two feet broad, and from an inch to an inch and a-half thick. With these boards they form an inclosure, from six to eight feet square, about six feet of course in height, covered in either with similar boards or with bark, the whole wattled together with branches of trees, and supported by wooden shoring.

A corpse is prepared for its last resting place by a rude process of embalming. A species of berry is thrust into the eyes, nose, and mouth. Pieces of snake-skin are tied round the head and also the trunk of the body as a protection from bugs and other insects. Blankets are then wound round the body, and silk handkerchiefs round the head, with beads and wampum. The whole is securely sewed up in buckskin with leather thongs, and carefully laid on the pile of dead bodies that has already been formed in one of the wooden inclosures, on the bare ground. Old residents say, that in former times, the Indians did not scruple to deposit the living wife with the dead husband; the eldest wife, if he had more than one, as sometimes was and still is the case; for the flat-heads are somewhat polygamously inclined. They imagine their heaven or next world to consist of extensive and beautiful hunting grounds, with *Tyhee* or the Great Spirit for a chief; and with this idea they deposit with the body of their departed friend, his blankets, implements of war, and hunting, with whatever other personal effects can conveniently remain near the corpse, supposing that he or she may require them in the Great Spirit's hunting ground. Mameluke Island contains numbers of the burial pens above described, inclosing hundreds of these mummy-like corpses, some of which are in a good state of preservation, the whole form appearing intact; while others have settled into the sand that drifts over this rocky islet.

DISCUSSION.

Sir DUNCAN GIBB said he recognised an old and familiar friend in the flat-headed skull now exhibited, for some seven-and-twenty years ago, he was permitted by his friend Dr. William Rowand, then living at Montreal, but now at Quebec, in Canada, to study and examine

a barrel full of them, which had been brought from the Hudson's Bay Territories, either by the doctor himself, or had been sent him by his father who was a partner in the Hudson's Bay Company. The precise locality whence they were obtained was not mentioned; it was, however, somewhere in the interior, but he would like Dr. Simms to tell him, whether these flat-headed Indians did not extend some distance inland as well as along the line of the Columbian coast and river. Although he had been familiar with these skulls for years, yet he had never heard such a clear and graphic account of the mode of flattening them in the infancy of both sexes as had been given by the author, and he expressed the pleasure he had derived in listening to his description of their mode of sepulture. He agreed fully with the author, that the artificial alteration produced in the shape of the skull, great and remarkable as it was, would not necessarily impair the intellectual powers, as his description of the people clearly enough proved.

The discussion was further sustained by Mr. Luke Burke, Mr. Serjeant Cox, Dr. Frederick Dally, Señor G. de la Rosa, and the President.

The meeting then adjourned.

NOVEMBER 25TH, 1873.

Professor BUSK, F.R.S., *President, in the Chair.*

The minutes of the last meeting were read and confirmed.

The following new members were announced: J. BARCLAY THOMPSON, Esq., B.A., Christ Church, Oxford; WM. GILL RANGER, Esq., M.R.C.S., 4, Finsbury Square; RICHARD BRIDGER, Esq., 5, James Street, Covent Garden.

The following presents were announced, and the thanks of the meeting voted to the respective donors:—

FOR THE LIBRARY.

- From the EDITOR.—The Food Journal for November 1873. 8vo.
 From the Rev. JAMES GRAVES.—Journal of the Royal Historical and
 Archæological Association of Ireland. Vol. I, No. 8. 8vo.
 From the MANX SOCIETY.—Mona Miscellany. 8vo.
 From the DIRECTORS.—Revista de Portugal e Brazil. No. 2, 1873. 8vo.
 From the SOCIETY.—Proceedings of the Society of Antiquaries of
 London. Vol. V, No. 8. 8vo.

- From the SOCIETY.—Archivio per l'Antropologia e la Etnologia. Vol. III, fasc. 3 and 4. 8vo.
 From the AUTHOR.—Tableau des Races de l'Inde Centrale. By M. Louis Rousselet. 8vo.
 From the SOCIETY.—Sitzungsberichte der physikalisch-medizinischen Societät zu Erlangen, 5 heft. 1872-3. 8vo.
 From the EDITOR.—La Revue Scientifique, Nos. 21, 22, and 23 1873. 4to.
 From the EDITOR.—Zeitschrift für Ethnologie; fünfter Jahrgang, 1873. 8vo.
 From the Rev. M. P. CLIFFORD, D.D.—Terra Incognita; or, the Convents of the United Kingdom. By John Nicholas Murphy. 8vo.

The author read the following report :

REPORT on the DEPARTMENT of ANTHROPOLOGY, at the BRADFORD MEETING of the BRITISH ASSOCIATION for the ADVANCEMENT of SCIENCE, 1873. By F. W. RUDLER, Secretary of the Department.

FULLY recognised as one of the great Departments of Biological Science, Anthropology has for the last few years taken an undisputed position in the proceedings of the British Association. At the recent meeting, this position was well maintained and the interest of our science ably supported under one of the distinguished Vice-Presidents of this Institute. Whilst the general Section of Biology was placed under the presidency of Dr. Allman, F.R.S., the special Department of Anthropology, was presided over by Dr. Beddoe, F.R.S.; and it is only fair to state at the beginning of this Report, that the successful issue of the proceedings in our department, was in great measure due to the ability and courtesy with which the duties of the chair were discharged. On the last day of the meeting, when Dr. Beddoe was unavoidably absent, the chair was occupied by Sir Walter Elliot, K.C.S.I., one of the Vice-Presidents of the Section.

Anthropology was further represented at Bradford by the following members of this Institute, many of whom lent their aid, by serving on the committee and by taking an active part in the public discussions; namely:—Mr. H. G. Bohn, F.R.G.S.; Mr. E. W. Brabrook, F.S.A.; Mr. Hyde Clarke; Mr. Moncure Conway; Dr. Barnard Davis, F.R.S.; Mr. W. Boyd Dawkins, M.A., F.R.S.; Mr. John Evans, F.R.S.; Mr. Francis Galton, F.R.S.; Sir Duncan Gibb, Bart., M.D.; Mr. J. Heywood, F.R.S.; Dr. J. Hooker, C.B., F.R.S.; Prof. T. McK. Hughes, M.A.; Dr. Richard King; Mr. Clements Markham, C.B., F.R.S.; Mr. M. Moggridge; Dr. Muirhead; Mr. J. S. Phené, F.S.A.; Mr. W.

Spottiswoode, F.R.S.; Dr. Struthers; Mr. R. H. Tiddeman, M.A.; Mr. E. B. Tylor, F.R.S.; Mr. C. Staniland Wake, and Mr. T. Wright, M.A.

The duties of the secretaryship had been deputed to Mr. J. H. Lamprey and to the Reporter; but it unfortunately happened that Mr. Lamprey was unable to attend the meeting.

All the departments of Section D were accommodated in the rooms of the Church Institute, the large lecture-hall being given up to the Anthropological Department. The meetings of this department were held on the Thursday, Friday, Monday and Tuesday of the Association week.

In opening the proceedings, Dr. Beddoe gained for our science much local interest by taking for the subject of his address—the Anthropology of Yorkshire. It appears that the earliest inhabitants, whose remains are to be distinctly recognised at the present day, may be referred to the Neolithic age. To judge from the evidence of certain tumuli, these neolithic folk were a people of moderate or rather short stature, with long and narrow heads, who buried their dead, with sanguinary rites, beneath barrows of long ovoid form. This type of tumulus, however, is much less common than the round barrow of the succeeding bronze age. But it should be remarked, that according to some local authorities, no distinctive race-characters can be established between the builders of the two kinds of barrow. The round barrows, plentifully distributed over the Yorkshire Wolds and the Cleveland Hills, contain either burnt or unburnt bodies, accompanied in many cases by arrow-heads of flint, in rarer cases with weapons and ornaments of bronze. The bronze-using builders of these round barrows seem to have been a tall and stalwart people, with harsh bony features, and a rather short and broad skull, of considerable capacity. Both types of cranium find their representatives in the present population; that of the long barrow being much rarer, however, than that of the round barrow. Dr. Beddoe is disposed to refer the round type to the Brigantes and Parisii—the two tribes of British Kelts known to have occupied Yorkshire prior to the Norman Conquest.

That Conquest seems to have exerted but little ethnological influence on the population. Without denying that vestiges of Roman blood are yet traceable in certain parts of the country, Dr. Beddoe believes that the intensity of Roman colonisation has been over-rated by certain authorities, and that it was not, from its very nature, likely to leave any permanent impress on the people whom it temporarily affected.

Respecting the succeeding Anglian conquest but little is known. Judging from the skulls found at Lamel Hill, near

York, this form of cranium was not remarkably fine, and was certainly not superior to the ancient British type. But the Anglian is hardly known as distinct from the Scandinavian type which ultimately overlaid it.

Great ethnological importance must, of course, be attached to the Danish Invasion. It is well known that Danes and Norwegians came over in considerable numbers and settled in Yorkshire, where their influence may still be traced in the dialect and especially in the local nomenclature. The distribution of place-names seems to show that the Danish element was irregularly distributed; some parts, such as Cleveland, being remarkably rich in Danish names.

Yorkshire, with certain parts of the adjacent counties, was visited with unexampled severity during the Norman Invasion; and ethnological changes, more or less marked, may have been thus brought about in some parts of the country. Subsequently to the Norman Conquest, no ethnological element of importance has at any time been imported into the locality.

In describing the present inhabitants of Yorkshire, Dr. Beddoe followed Prof. Phillips in recognising three distinct types; (1.) Tall, large-boned people, with long faces, fair or florid complexion, blue or grey eyes, and light-brown or reddish hair. (2.) Robust, oval-faced people, with a somewhat embrowned, florid complexion, brown or grey eyes, and brown or reddish hair. (3.) Shorter and smaller folk, with short round faces, embrowned complexion, and very dark eyes and hair. Prof. Phillips ascribes the first and second types to a Scandinavian, and the third to a Romano-British, or perhaps an Iberian origin. Dr. Beddoe is inclined to regard the first type as Norwegian rather than Anglian; the second as Anglian rather than Norse, and Norse rather than British; whilst the third is of more doubtful origin, and may be made up of many different elements—such as Iberian, Brito-Keltic, Roman, Breton, and French.

A wide range of personal observation, supplemented by information derived from his local correspondents, enabled Dr. Beddoe to offer some comparative observations on the physical anthropology of Yorkshire. It appears that the width of the head is rather greater in this county than in other parts of Britain. The hair is, on the average, lighter, but dull shades prevail. In the rural districts the people are remarkably tall and stalwart, but they are rapidly degenerating in the towns. A sketch of the moral and intellectual characters of the typical Yorkshireman brought the address to a conclusion.

It is, perhaps, to be regretted, that the excellent example set by the chairman, of discussing questions of local interest, was not followed by other contributors. To the end of the

meeting, this address remained the sole communication devoted to local anthropology.

Most anthropologists will remember, that at the Brighton meeting, a committee was appointed for the purpose of preparing and publishing brief forms of instructions for travellers, ethnologists, and other anthropological observers. On behalf of this committee, Colonel Lane Fox, who had acted as secretary, presented a preliminary Report, accompanied by specimens of the work already executed. Soon after the appointment of this committee, two exploring expeditions were despatched from this country to Africa; and at the instance of the Royal Geographical Society, a body of anthropological instructions was drawn up by certain members of the committee, and issued to the officers in command. But as these instructions were prepared under pressure of only a few days' notice, and had reference solely to African exploration, it was considered that they did not fully meet the objects for which the committee had been appointed. Under these circumstances, the responsibility of their publication was undertaken personally by Colonel Lane Fox.

Ignoring then the small volume of African instructions, the real work of the committee has been that of preparing an elaborate system of notes and queries distributed under one hundred heads, and arranged in three groups, relating, (1) to the constitution of man, (2) to culture, and (3) to miscellaneous questions bearing on anthropology. The preparation of these instructions has been undertaken by some of the most eminent authorities on the respective subjects; and most of these contributors have by this time completed their work, much of which is already in type. But at the date of the meeting, the printing had not sufficiently advanced to justify the withdrawal of the sum placed at the disposal of the committee, and the grant was, therefore, allowed to lapse. It must be a matter of congratulation to all, that this committee has been re-appointed, and that a new grant, extending to £50, instead of £25, has been placed at its disposal. It is estimated that this sum will cover all expenses of publication, and it may now be confidently expected that the work will appear at an early date.

Turning from these official communications to the main body of papers, the first on the Bradford list was the contribution of a lady. Miss A. Buckland, of Bath, presented a paper on "The Serpent in connection with Primitive Metallurgy"; but as this communication has been transferred to the Institute, it is almost needless to reproduce the writer's arguments. It may be sufficient then, to say, that Miss Buckland's object was to trace a connection between the worship of the serpent and a knowledge of metals; to show, in fact, that the serpent-worshipping Tura-

nian races of the East were the earliest workers in metals. Not that they were acquainted with the art of smelting metals from their ores, but they seem to have discovered certain metals which occur more or less abundantly in a native state. These serpent-worshippers are also credited with some knowledge of mining and of agriculture, and appear to have been acquainted with precious stones. From an extensive study of legendary and monumental evidence, the authoress is led to believe that such knowledge was derived in some way through the instrumentality of the serpent, which therefore came to be revered as a benefactor of humanity.

In a paper entitled: "A True Cerebral Theory necessary to Anthropology," by Dr. J. Kaines, M.A., it was argued that anthropology must needs remain incomplete as a science, until phrenology shall have acquired positivity. The writer maintained that phrenology, being based on physiology, was the only *de facto* science of mind, and that other so-called sciences of mind, based on theological and metaphysical data, were essentially unscientific. After reviewing the labours of Gall and his followers, Dr. Kaines showed in what manner the phrenological system had been regarded by many eminent thinkers and physiologists, giving especial prominence to the views of Auguste Comte.

More than twenty years' residence as a missionary in the Island of Mangaia, one of the Hervey group, gave considerable value to some notes on the ethnology of these islands, by the Rev. W. Wyatt Gill. A belt of coral-limestone, surrounding the interior of Mangaia, rises gradually at a distance from the beach, and presents a perpendicular escarpment towards the interior. This coral rock is perforated by numerous caverns, which have been used as habitations, refuges, and cemeteries. The author had explored a great number of these limestone caves, and exhibited examples of the human bones which he had procured from the stalagmite. Mr. Gill expressed his belief that the Hervey Islands, and indeed all the eastern Pacific Isles, had been peopled in comparatively recent times, and some generations later than Tahiti and the neighbouring islands. According to the author, the colonisation of the Hervey group may not date back beyond five or six centuries. After the reading of this paper, Mr. Gill exhibited and described a highly interesting collection of stone implements, and other objects of ethnological significance, collected during his residence in Polynesia.

A profusion of admirably-executed diagrams lent a good deal of attraction to Mr. Phene's paper, on "An Age of Colossi." After calling attention to the inhabitants of what he described as the three great centres of Colossi—the Egyptian, the Malayan,

and the Pre-Mayan or Mexican—the author pointed to certain characters which their works possessed in common. Among the most prominent of these features were the occurrence of the pyramid, the obelisk, the monolith, and the elevated platform, in their architecture; and the delineation of colossal emblems of man, birds, and reptiles. The worship of the sun was also said to be common in these widely-separated centres. The Greeks and Romans were not originators of colossi, but merely elaborated the crude ideas derived from Egypt. In referring to the remains of colossi in Britain, Mr. Phené took occasion to correct the interpretation frequently placed upon Caesar's description of the way in which the Gauls sacrificed their human victims. From the use of the word *contexta* applied to the large figures in human form, it had been supposed that they were huge wicker images which were filled with victims, and then set a-fire. But Mr. Phené maintained that the figures were merely arenas or spaces marked out in the shape of a man, and fenced round with osiers. The gigantic figure carved in the chalk at Wilmington, in Sussex, is believed to be one of these sacrificial arenas. In consequence of Mr. Phené's exertions, the Wilmington giant is about to be restored; and the Duke of Devonshire, who has kindly consented to this restoration, has aided the work by a liberal donation.

To Mr. E. B. Tylor, F.R.S., the department was indebted for a valuable paper, "On the Relation of Morality to Religion in the Early Phases of Civilisation." Most savages possess some amount of theology and some amount of ethics, but the one may be quite independent of the other. The animistic religion of the lowest races at the present day, as that of the Australian, is said to be destitute of any moral element; and Mr. Tylor inferred, that during the earliest phases of culture in prehistoric times, and perhaps for a long period of history, religion and morals were essentially distinct agents, not derived from the same source, not operating in the same way, not enforced by the same authority. The author sought to show how, in the course of civilisation, a coalescence was brought about between morality and religion; how an ethnical theology came to be evolved from an unethical system. In illustration of his argument, the author traced in detail the history of the connection between religious rites and the institution of marriage. There seems to be little doubt that marriage was originally nothing more than a civil compact, the bride being obtained either peacefully or hostilely, by contract or by capture, but without any of the religious ceremonies which are commonly associated with marriage in more advanced stages of civilisation. On the other hand, the history of medicine exemplifies the way in which religion can be sepa-

rated from an institution with which it has long been connected. In the lowest stages of culture, disease is commonly referred to the influence of evil spirits, and priestly exorcism is consequently the only recognised cure; but as civilisation has advanced, the causes of disease have been rationally studied, and the healing craft has therefore been transferred from the sorcerer to the man of science. These examples tend to show how morality might become associated with religion, although the two agencies may have been originally distinct. The present paper was an original attempt to determine in what manner, and at what period in the history of civilisation, such an amalgamation was effected. This communication was certainly one of the most notable on the Bradford list, and it is to be hoped that its author will transfer it to the Institute.

Some "Remarks on Ethnic Psychology" were presented to the department, by Mr. R. Dunn, F.R.C.S. In a paper which the author read at the Cambridge Meeting, in 1862, he insisted on the importance of carefully studying the cerebral organisation of the typical modifications of man, with the view of elucidating their characteristic psychological differences. Believing that psychical peculiarities are correlated with differences in the organisation of the brain, Mr. Dunn again urged the necessity of such comparative studies, and dwelt at length on the labours of Gratiolet. At the same time he regretted that more had not been done by other observers, in carefully comparing and contrasting the structure of the brain in different races. This paper will probably be submitted to the Institute; but it may be remarked that, in the course of the discussion, Dr. Beddoe did not fail to point out the new direction which such studies are likely to take, through the recent investigations of certain German physiologists, and especially through those of Prof. Ferrier on the localisation of the functions of the brain.

Two philological papers, which we may hope to have an opportunity of hearing in this room during the present Session, were read by Mr. Hyde Clarke. One of these was "On the Comparative Chronology of the Migrations of Man in America in relation to Comparative Philology"; and the other was "On the Prehistoric Names of Weapons." In the former communication the author proposed the basis of a chronology of migrations from the old to the new world in prehistoric times. He concluded that America possessed no indigenous or aboriginal language, grammar, mythology, or culture; but that these were derived from the old world. The earliest epoch of migration proposed by the author was that of the Pygmæan races, having languages allied to the Mincopie of the Andaman Islands.

In discussing the names of weapons, Mr. Hyde Clarke cited,

from the languages of India, West Africa, the Americas and Australia, examples of the biliteral roots, *bk*, *bn*, *kn* and *dm*, applied to arrow and dart, knife, axe or hatchet, spear or lance. Passing to the later trilateral epoch, allusion was made to the fanciful resemblance of weapons to the tongue in the act of darting; examples of this are furnished by the words *Degen* and *Tongue*, *Lancea* and *Lingua*, *Gladius* and *Glotta*.

For several years past the Geological Section has regularly received reports from the Kent's Cavern Committee, which was appointed at the Bath Meeting in 1864, and is still carrying on the systematic exploration of this cave. The results of their work, although submitted year by year to the geologists, have always had great interest to the anthropologists. Hence Mr. Pengelly was warmly welcomed in our department, when he came forward with a paper on the "Flint and Chert Implements found in Kent's Cavern, near Torquay." The main object of this communication was to show that the cave offered evidence of occupation by man at two distinct eras. The sequence of the deposits in this cave, and the character of the remains which they respectively contain, are now well known. The layer of "black mould" in the uppermost part of the floor yielded remains which were comparatively modern: the flint implements were merely flakes and strike-a-lights, and the associated organic remains were all of recent species. Mr. Pengelly suggested that the period represented by this black mould might be appropriately called the *ovine* period, since the remains of sheep are restricted to this deposit. Passing over the subjacent layer of "granular stalagmite," and the local deposit called the "black band," another bed, of mechanical origin, is reached; this is a layer of reddish loam with fragments of limestone, known as the "cave-earth." It has yielded ovoid and tongue-shaped implements of flint and chert, fashioned from flakes which have been produced artificially. These stone implements were associated with certain objects of bone, and with the remains of extinct mammals, among which those of the cave-hyæna were the most characteristic; hence the period of the cave-earth has been termed the *hyænine* period. Separated by a floor of "crystalline stalagmite," comes a yet lower cave-deposit, known as the "breccia." This has yielded a number of rude flint implements formed direct from flint nodules and not from flakes; moreover there were no bone objects in this layer. The mammalian remains from this deposit were exclusively those of the bear; and the breccia is consequently taken to represent an *ursine* period, prior to the advent of the hyæna. The greater rarity and the ruder form of the stone implements of the breccia point to an earlier phase of civilisation than that of the cave-

earth; and as the two deposits are separated by a thick layer of stalagmite, it is inferred that the corresponding periods must have been separated by a wide interval of time. The value of Mr. Pengelly's communication was duly recognised by the committee, who recommended that it should be printed *in extenso* in the Annual Report.

Although this was the only communication on cavern researches made direct to the department, yet it should be mentioned that the caverns in the mountain limestone of Craven received some share of attention. The Victoria Cave, near Settle, which is now being systematically explored by a committee of the British Association, was visited, at the close of the meeting, by a party of members under the guidance of Mr. W. Boyd Dawkins, M.A., F.R.S. A select party had previously visited this cave, at the invitation of Mr. Birkbeck, of Settle. Another of the general excursions was made to Ingleborough Cavern, under the conduct of Prof. T. Mc K. Hughes, M.A., and Mr. R. H. Tiddeman, M.A. In this cavern, the visitors had an opportunity of examining the stalagmitic deposit known as the "jockey cap," on which Mr. Dawkins has recently made some observations respecting the rate of the growth of stalagmite.

Returning to the list of papers, we notice a short communication from Dr. J. Sinclair Holden, descriptive of what he believed to be "a hitherto undescribed Neolithic Implement," illustrated by specimens of the implement in question. It is formed from a flat flint flake by chipping a semi-circular piece out of its margin, the edge of which is bevelled and finely serrated. Specimens have been found by the Earl of Antrim and by the author in several dolmens in Antrim. Dr. Holden believed it to have been used as a saw, and suggested that it might have been of service in sawing notches on a round stick, or in notching arrowshafts to aid in securing the barb. Specimens of the implement will probably be submitted to the Institute at an early date.

A horn and certain bones found in a cutting in a street at Maidenhead were exhibited by Dr. Moffat. They were embedded in flint gravel at a depth of about six feet from the surface. The horn exhibited certain cuts, some of which appear to have been made for the purpose of separating the horn from the skull, and Dr. Moffat suggested that these had been made with a metal tool. Mr. Boyd Dawkins expressed his opinion that the horn belonged to an ox intermediate between the *urus* and *Bos longifrons*.

Some stone implements, collected by Mr. C. B. Brown during the geological survey of British Guiana, were exhibited and described by the reporter.

During last year's session of the Italian Anthropological and Ethnological Society, presided over by Prof. Mantegazza, a paper was brought forward by Prof. Gennarelli, with the view of proving the existence of a race of red men in Northern Africa and Southern Europe in pre-historic times. Mr. C. H. E. Carmichael contributed to the Department an analysis of this paper, and of the discussion which it excited. Gennarelli's theory is based partly on legendary and partly on monumental evidence. In Egyptian hieroglyphics and on Etruscan pottery representations of men are invariably coloured red, whilst those of women are of a lighter shade. As a consequence of the discussion of this subject, a committee composed of some of the most eminent Italian anthropologists, archaeologists, and philologists, has been appointed for the purpose of studying the primitive races of Italy.

It is not long since Mr. Park Harrison, M.A., read before this Institute a paper "on the Artificial Enlargement of the Ear-lobe," in which he traced this custom from the west of India to the Continent of America. Having extended his observations on such coincidences in widely-separated localities, Mr. Harrison brought to Bradford a general paper, in which he dealt with the wide question of "The Passage of Eastern Civilisation across the Pacific." The object of this communication was to show that not only the practice of distending the ear, but a number of other customs, might be traced from the old world, in an almost direct line across the Pacific to the shores of America. The similarity of customs was, in many cases, too striking to be referred merely to accidental coincidences, and the author maintained that it indicated actual intercourse. Mr. Harrison's observations related chiefly to the islands in the eastern half of the Pacific, especially to Easter Island. According to local tradition, a chief reached Easter Island ages ago from Oparo, an island more than two thousand miles to the west. Now Capt. Powell has shown that there is a drift-current flowing eastwards, caused by winds which at certain seasons blow in a direction contrary to that of the trades, and that this current after sweeping round Easter Island is deflected northwards. The author argued that such a current might carry canoes from the west to Easter Island, and that a boat starting from this island might be carried in a north-easterly direction and landed on the coast of Peru, in the neighbourhood of Truxillo. This migration would well accord with certain South American traditions.

Mr. W. Boyd Dawkins, F.R.S., contributed a paper, or rather delivered an address, "on the Northern Range of the Iberians in Europe." After describing the characters of the Iberian, Basque, or Euskarian peoples, he examined their geographical

distribution from the historical point of view. In the Iberic Peninsula, two ethnological elements were recognised—a northern or Iberian, and a southern or Keltic; the fusion between the two being indicated by the term Keltiberi. In France, at the time of its conquest by the Romans, the Iberic element was represented by the Aquitani, who were separated by a broad Keltic band from the allied Ligurians on the borders of the Mediterranean. In Britain, the Iberians were represented by the Silures of Wales, whilst the greater part of the island was occupied by a Keltic population, although the Belgæ had settled in some of the maritime regions. So in Ireland, the dark-haired inhabitants of the south-west were said to be of Iberian descent, whilst most of the island was peopled by Kelts. This distribution of the Iberians in patches scattered through Ireland, Wales, France and Spain—islands of Iberians, isolated by seas of Kelts—went to show that at one time the Iberic peoples were probably distributed over the entire area, and had been driven westward by the Kelts. According to Mr. Dawkins, this conclusion was confirmed by a study of the contents of bone-caverns and tumuli; indeed the evidence from this source tended to prove that in the neolithic age the Iberians extended as far north as Oban and as far east as Belgium, and that the caves of the Iberic peninsula were also occupied by similar people. The author then traced the westward route by which the Iberians probably passed from Asia into Europe; and finally touched on the relation of the Iberians to the Etruscans.

Dr. Beddoe, although unavoidably absent when Mr. Dawkins brought this subject forward, contributed to the discussion by transmitting a written note on the Iberian question.

In view of our political relations with the west coast of Africa, Mr. Hyde Clarke read some notes "On the Ashantee and Fantee Languages." A great variety of languages are concentrated on the coast of Africa, and as they belong chiefly to earlier stocks, they offer evidence of successive migrations into the district. The Ashantee is closely related to the Fantee, and these two languages, with the Dzellana, were classified with the Corean, to the north-west of China, whilst the Chetemacha was assigned as a North American branch.

Mr. Hyde Clarke also took occasion to make some remarks on a valuable Report on "Bushman Researches," by Dr. Bleek. A copy of this report had been received by the Department, but it was decided that, as the document was in the form of printed matter, it could not be read as an original communication. Nevertheless the value of these materials for anthropological investigations was fully recognised, and was well explained to the meeting by Mr. Hyde Clarke.

In the foregoing retrospect of the proceedings at Bradford, the several communications have been noticed precisely in the order in which they were taken at the meeting. It will be observed that in several cases papers of a like character were not grouped together. This arose not from any oversight, but from sheer inability on the part of the officers to classify the subjects. Although the rules of the Association now require that all papers be sent in before a certain date prior to the meeting, this rule was so far neglected that comparatively few of the papers were in the secretary's hands at the commencement of the meeting. To avoid the recurrence of this inconvenience, the reporter ventures to urge on future contributors the desirableness of strictly adhering to the new rules, and of forwarding their communications as early as possible, in order that arrangements may be made for appropriating each day to a special subject, or to a group of kindred subjects. Such an arrangement must obviously react to the benefit of those who contribute memoirs, since it would tend to draw together an appreciative audience specially interested in the subjects under notice, whilst the discussions would thus become more systematised and less discursive than when they range over a desultory list of papers.

On the motion of Mr. Brabrook, seconded by Mr. Hyde Clarke, a vote of thanks was accorded to Mr. Rudler for his Report, and for his services to Anthropology, as sole Secretary to the Department at the Bradford Meeting.

Dr. G. W. LEITNER, Principal of the Government College of Lahore, gave an account of the SIAH POSH KAFIRS, a race inhabiting Kafirstan, in the Hindu Kush, and supposed to be a Macedonian Colony.

Dr. G. W. Leitner spoke as follows: Before I come to the subject which interests us this evening, I think it necessary to refer to the action which the Society took four years ago in a matter which indirectly bears upon it.

In 1869, it will be remembered several societies, especially the Anthropological, the Ethnological, and Philological, addressed the Secretary of State for India on the subject of prolonging my leave in this country,* with a view of elaborating the material

* The following is the Copy of a Memorial by the Philological Society of London to the Secretary of State for India, sent November, 1869.

MY LORD DUKE,—The Philological Society having been informed that Dr. G. W. Leitner, the Principal of the College at Lahore, is at present on leave in England, and being aware that it is his intention to complete his

that I had collected during a tour in Dardistan and adjoining countries. It is not necessary for me to give you a detailed account of the exceedingly kind and earnest manner in which this was brought to the notice of the Government, which, however, considered that I should return to India; but it is necessary to point out, with a view of showing that the action of societies on such occasions is advisable for the encouragement of travellers in general, the results, direct and indirect, which were achieved by it. You remember that you saw here on that occasion a Yarkandi, Niaz Muhammed, who was the first Yarkandi who had ever visited Europe; and whom I had brought over to this country with a view of making him, as far as my own humble means might permit, a pioneer of civilisation among his own countrymen.

great literary work on "the Languages and Races of Dardistan," two parts of which have been already laid before the Society, unanimously resolved at its last meeting, respectfully but urgently to request your Grace to enable Dr. Leitner to accomplish his purpose by granting him the required leisure while staying in Europe.

For the Society is of opinion, that while the results of his journey already published fully entitle Dr. Leitner to the sympathy and gratitude of philologists, his great undertaking could not be brought to a speedy and satisfactory termination, unless he was temporarily relieved of all his official duties, and unless he could utilise the literary materials only to be found in Europe.

I have the honour to be, my Lord Duke,

Your Grace's obedient, humble servant,

(Signed)

T. HEWITT KEY,

President of the Philological Society.

His Grace the Duke of Argyll, etc., etc.

Other Societies and Scholars in England and the continent expressed their appreciation of what Dr. Leitner had already done and, in various ways, endeavoured to assist the efforts made for retaining him in England. Drs. Beddoe and Seemann, in their capacity as President and Vice-President of the Anthropological Society wrote to the "Standard," December 6th, 1870, as follows:

CENTRAL ASIA.

TO THE EDITOR: SIR,—On the evening of the 30th ultimo, Dr. Leitner delivered before the Anthropological Society a remarkable discourse, in which he sketched out, as far as time would admit, his important philological and anthropological discoveries in the hitherto inaccessible region of Dardistan, and on its Tibetan frontier.

There was but one feeling among the audience, after listening to the modest but eloquent address of Dr. Leitner—one of regret that, owing to his not having been able to procure an extension of his too short leave of absence, not only must we be precluded from hearing him further on these matters, but, what is of vastly greater importance, science may suffer materially through his being unable to carry out in Europe, within reach of good libraries and of the assistance and criticism of other philologists, the arrangement and development of the materials he has collected, including his MS. treasures from Balti."

JOHN BEDDOE, M.D., Pres. A.S.L.

BERTHOLD SEEMANN, F.A.S.L.

Anthropological Society of London, 4, St. Martin's Place, W.C.

This man was well received here; and as one of the results of that kind reception, I may mention that he has since been enabled to render the Government substantial service in a matter which at one time created considerable public interest, namely, the murder of Mr. Hayward, and has submitted to Government a very full and, I am convinced, a very trustworthy report as to that murder. This report was liberally rewarded, and the reproach that we all felt had been incurred at that time, namely, that the man had not received the recognition in this country that he deserved—this reproach has, by the subsequent action of Government, been in a very great measure removed. This man, who is now doing pretty well, has just written me a letter, in which he mentions his great pleasure at having visited Europe; and in which he declares his intention of again coming to this country in the course, perhaps, of next year, this time at own expense.

Indirectly also, it cannot be denied for a moment that the action of so many societies concentrated on one subject was intended to have a very great effect in stimulating the Indian Local Government generally towards philological and other inquiries; and in the task which was set to Dr. Bellew by the enlightened Panjab Administration, as well as in the greater attention paid to archaeological and other inquiries, I have no doubt that what you and other societies did then had some influence. Mr. Grant Duff also mentioned the arrival of a Yarkandi in Europe in his address to his constituents. A second mission was organised to Yarkand; this has now been followed by a third mission, which to all appearances promises to do very well indeed. There seems to be no risk whatever connected with the mission; if you refer to the "Times" of Nov. 24th, you will find that there are twelve thousand coolies, a few thousand baggage ponies, and so on, besides hundreds of men, Europeans and others, so that we may look upon this mission as being likely to be a success.

Again in 1869, we could not help regretting that the action of our travellers had to a very considerable extent been thwarted by the Maharajah of Kashmir; we can now congratulate ourselves on a change in the attitude of that feudatory, that is if we can trust the account in the "Times" of Nov. 24th, namely, that the Maharajah of Kashmir has, as far as *this* mission is concerned, given every possible assistance. I fear it would take a very long time to convince me of the thorough loyalty of that feudatory: but, at any rate, we have before us one particular gratifying fact, and we need not, perhaps, rouse any apprehensions such as I raised in this very room four years ago, with regard to the fate of Mr. Hayward, an apprehension which

unfortunately was actually verified. So you see, gentlemen, there has been some justification for your action; what with the greater attention that missions to Yarkand have received, and in the matter of the probable return of Nyaz Muhammad *Akhund*, as he is now called. I may mention why. He has been enabled in this country to acquire a greater knowledge of his own religion than he possessed before, and so far from having made his countrymen afraid of an hostile influence having been brought upon him or his religion—a very delicate point with all Muhammadans—he has got now the learned and sacred title of “*Akhund*,” and is coming back to us with, let us hope, additional information, and the same strong desire to acquire a knowledge of our civilisation.

The last, if least, important result of the action taken then by the societies was that it, of course, stimulated me. On my return to India, I found myself charged with additional work. My health broke down. A change to the frontier enabled me to gather information, and when I finally obtained the only holiday possible to a literary man under the Indian Government, that of being laid up with sickness, I was enabled, in remembrance of the debt that I owed to the various societies in England, to put on record, in a more or less fragmentary manner, the legends, the songs, the customs of the people that live between Kashmir and Badakhshan, together with a detailed history of the encroachments of our feudatory, the Maharajah of Kashmir. Thinking that perhaps this might be my last opportunity of showing that your confidence in me had been rightly placed, I wrote, from my bed of sickness, at the end of three years in India, the work which is now before you; namely “*Dardistan, Part III*,” and which I would have brought out in six months, and in a better form, had the solicited leave been granted to me in 1869. Although, unquestionably, the least important result of the action taken by you then, it at any rate shows that I have not been regardless of the claims which every literary man owes to the learned societies that interest themselves in his behalf. In fact, I may go so far as to say that had the existence and history of these countries, especially of Hunza and Nagyr and other countries, been so thoroughly known in 1869 as it is now, possibly the discussions, more or less of an uncertain character, that have taken place with regard to the Russian boundary in Central Asia and the so-called “neutral zone,” would have taken the character which accurate knowledge would have given it, and that we possibly might on this present occasion have been able to congratulate ourselves, if not on the results of our diplomatic wisdom, at any rate on our possession of that quality. At present, the

boundary is faulty, ending at Derwáz, the very place where it ought to begin, and where it ought to cut off any possible invader from the most accessible and direct route that anybody could travel, namely, the road down to Chitral into Peshawur. I say now, as I said in 1866 and 1869, that the road from Ladak to Yarkand, on which three missions have proceeded, is not the road to Central Asia, either for military or commercial purposes.

I could not delay much longer expressing my thanks to you, although, as you can perceive, I am still suffering from ill-health. So improbable was it though that I should return to this country, that some of the collections that I had made, which were very small indeed in comparison to what I have brought now, were scattered and sold during my absence; and that articles which were taken word for word out of "Dardistan, No. III," were never acknowledged. Without pretending that there is any particular necessity for acknowledging the source from which they came, it seems to me that this, although a purely personal matter, has so far an importance that travellers, who are constantly obliged to go back and to leave the results of their explorations in this country, should be enabled to count on a certain protection of their literary property or creations whilst away; and you may be sure I would not have referred to this, a very small personal matter, if a greater matter had not been involved, namely, the protection due to such property by the learned societies.

I have also much pleasure in referring to an exceedingly plucky and, I think, wise resolution of your society, which will enable me to enter immediately on the subject which we have in hand, namely, you resolved at your meeting in November 1869, "that the exploration of our frontier and of the countries near to Central Asia, which are at present an almost *terra incognita*, is of the utmost importance to anthropology; and that the Indian Government will confer the greatest boon upon our science by giving whatever support and encouragement it may have in its power to those enterprising and courageous travellers who are able and willing to risk their lives in this attempt." This seems to me a very wise and plucky resolution, and I have not the least doubt that it had its effect on those who heard it, for I believe that it takes a great deal to baulk either a Briton or a German if he makes up his mind to do anything. There are a great many men who, whatever the Government action may necessarily be in a matter, would go and do a thing, and as the Government itself is composed of gentlemen very much interested in such matters, they each privately very much admire the resolution which they cannot officially endorse. But in a

more direct manner, what you then resolved has been attempted by Mr. Downes, who crossed the frontier in the early part of this year on a missionary expedition. However, he had scarcely been away a few hours from Peshawur before he was brought back. But you must not think for a moment that he was the only one who has crossed the frontier since 1869. There are a number of men, quite unknown to fame, of European extraction, who have done it. It would be a very curious chapter to narrate the history of the enterprising men, who without any wish to figure before learned societies or to have their name enrolled as famous men or anything of that kind, have done very great and daring deeds indeed, partly from religious and partly from mercantile motives, and partly from the mere desire of adventure.

Now on the subject before us this evening, it so happens that all classes of the British public can most cordially unite. I do not know whether this is the case with every question that comes before the Anthropological Society; but this is a question in which people anxious for the promotion of their religion, people anxious for the abolition of slavery, and people anxious for exploration on a field which is almost unknown, with the exception of the few certain data that I am going to give this evening, can most cordially unite. To begin with, under a religious aspect, it appears that these tribes who inhabit the slopes of the Hindu Kush and of whom so much has been said and very much more has been conjectured, because on a subject about which one knows nothing, all can conjecture, consider themselves a sort of country cousins of our own. When Sir Wm. Macnaghten was at Jellalabad, a number of the Siah Posh Kafirs came to welcome us as their brethren; but were received in a rather purse-proud sort of fashion, as relatives who are better off might receive them, and they went away considerably disgusted. But the feeling which they have of brotherhood to the Europeans, does not seem to have been altogether extinguished by that very cold reception. On other occasions the Kafirs have talked *of* Europeans, and, on the very rare occasions on which they have come across them, *to* Europeans, as their brethren. And, take the fact for what it is worth, General Feramorz, the great and loyal general who conquered for the present Ameer of Cabul the countries that he now possesses, used to assemble the Kafirs (and they were numerous) in the Ameer's service one day in the week, and used to tell them that Jesus was the Son of God, and that they were Christians, and that his ignorance of Christianity prevented him from saying anything more. Although their notions of Christianity, as you may imagine, may be of the very crudest and faintest description, still here we have got a field of operations on which,

without encroaching on the susceptibilities of anyone, we can cordially endorse the action of missionaries and others, who want to penetrate into that country. It is not like trying to subvert the beliefs of people, whatever grounds may be given even for that course of action, but it is bringing to a people who consider themselves the brethren of the European, a religion which some of them, at any rate, say that they profess, and which all of them, I believe, as far as outer indications may be trusted, are inclined to accept.

Gentlemen, we cannot afford to throw away any assistance that we may get towards the exploration of these unknown countries, and if we can stimulate the subscribers to the Church Missionary and other societies, to stir up their own committees to action with regard to Kafiristan, I believe we shall be doing what is right.

Secondly, we have lately been told a good deal about slavery. Sir Bartle Frere has been out to the coast of Africa, and his moral influence, or men-of-war, have had a certain success: but here is a state of slavery nearer to ourselves, with which we could grapple, a state of slavery existing within our own extreme frontier, and within a few miles of Peshawur. Although forbidden by the law it is nevertheless practically carried on, and as an instance of the truth of my assertion I may mention that being very anxious indeed to get a Kafir, and not knowing how to get one, the three men who were with Lumsden having been murdered *en route* back to their country, I communicated my wishes to a chief who has enjoyed very much the confidence of our Government, and I think deservedly so. This man said to me that I need not be under the least concern, for, no doubt, he could buy a Kafir at a village that he mentioned, which is within five miles of Peshawur. He said that Kafirs were sometimes brought down there for sale. When I replied that such a purchase was against our official rules and European principles, this man who had been so much in connection with us, and was much trusted by us, in order to allay my scruples, said, "Well, if your rules do not permit you to buy one *within* the frontier, I will organise a kidnapping party *beyond* the frontier, and I will bring a Kafir in."

This connivance at, or rather this non-suppression of, slavery, is a most serious political mistake, because these Kafirs keep the roads in a constant state of insecurity. The main road between ourselves and what is more especially called Central Asia, is most unsafe, because the Kafirs attack all travellers, and although they do not plunder them, as some people say, still they murder them, which of course has quite the same deterrent effect on merchants who want to go that way. The

Kafir, who is here to-night, assures me that his people would not infest the roads, if the kidnapping of Kafir children by Muhammadans were stopped; and that pressure should be put on our ally the Amir of Cabul not to purchase slaves. As he is extending his influence, or claiming to have already extended it to territories of which his ancestors never dreamed, and as we are supporting him in his ambitious designs, we have every legitimate reason, and are justified by philanthropy as well as good policy, to insist upon his showing a vestige of that power that he professes to have over these countries, by trying, at any rate as far as he is concerned, to stop the kidnapping; because the Kafirs say, "we will not have our children kidnapped to be slaves in the families of the most detestable race that we know, namely the Muhammadans." Although it may seem to you to be a very bold thing for me to assert, I am perfectly convinced that if such action were taken, the Kafir chiefs—at any rate those of Katar, with which place we have some sort of relations, and whose chiefs are powerful,—would keep a very large portion of the road open, and I have no doubt that all the other chiefs would eventually come into our territory or send hostages to our government as a sign of their good faith. This road of which I am speaking is the main road, not a round about one like the one that Forsyth and his party are going upon now, but the direct road; and *the* road to be opened up, if officials would only admit it, between ourselves and the Russians, would then be kept perfectly clear. This would be a tangible advantage for commerce both to ourselves and to the Russians, and to those countries, and it is a thing that might be accomplished. I do hope that I have sufficiently pointed out that this is a subject in which abolitionists would be greatly interested as well as religious people.

And thirdly, of course I need not prove to you that in the solution of the mysteries of the "neutral zone," geographers, ethnographers, and philologists would be alike deeply interested. With regard to geographers, I have not the least doubt that they ought to be, because as long as in our reports, written by most able and pleasant men, we have the name of a king of a country, to explore which thousands of rupees are paid every month to the head of the survey, put down as that of an "emblematical animal," it does seem that a further exploration of these countries would be a great advantage. When we find, for instance, the Kooner River made to run through Chitral, although it flanks Kafiristan; when we find Tshamkand and Chemkend put down as two places, although they are the same, only spelt differently, it seems that this is really a subject in which geographers might take a further interest. And when you come to ethnography, and

find most important questions involved, questions the solution of which affect the history of society; when you come further to philology, and find that here are races speaking generally true Sanscritic dialects, dialects which have suffered no phonetic decay as the Bengalee and the Hindi, but dialects which are sisters of the Sanscrit, if they are not, indeed, entitled to claim a much older relationship; when you find races preserving in the midst of secluded valleys a highly inflectional group of languages; when you see all that, and then come to this fact, that even so humble an inquirer as myself has been able to collect the vocabularies, which are here put before you, of ten languages that vary considerably, that vary as much, the nearest of them from the other, as the Italian from the French, and the furthest as much as the Latin and the Arabic; when you find all that, I need not press the subject further on your attention in soliciting that earnest efforts should be made towards bringing this most interesting triangle between Kabul, Badakhshan and Kashmir under proper, honest, and intelligent exploration, from every point of view. As for the question whether Government should or should not help, I think that might be left alone. Government, perhaps, is bound to follow, rather than to lead, in any question requiring special initiation or special enterprise. Perhaps, it is right that it should be so. Even if *one* individual were to address the chiefs of whom I have spoken, were to send them suitable presents, and were to mention the disgust that Europeans feel at slavery, his action would do some good; and I will say this, that if nobody else does it I will do it. I believe even that will have some effect, and Government which waits upon success, will no doubt, then support the enterprise in its most efficient manner. As for any fear about Government being involved in difficulties in the event of the death of travellers, I think that is a consideration which we may altogether dismiss from our minds, because as a matter of fact, people have been murdered and nothing whatever has been done; and the Affghans know, and the Dards know, and everybody else knows very well, that we cannot have power beyond the range of our guns, and that there is no reproach whatever incurred by the British Government by an European traveller being murdered. The Affghans, of course, know very well that they are subsidised to keep very little tracts of country open on very special occasions and that there the matter ends. Stoddart and Conolly, and others were murdered, and what was done? Hayward was murdered only the other day, and what was done? Nothing—and in this course I have not the least doubt that we may expect Government to persevere, and I do not know that we can expect Government to do anything else. When a difficulty arises, as

for instance, just now, in the case of the Bengal famine, as we have seen in to-day's papers, and actual work has to be taken in hand, then the men who are the firebrands of to-day become the saviours of to-morrow, and Government will appoint them to do any special work, which they cannot get done by those trusted, if incompetent, "*safe men*," who so deservedly draw the largest pay in times of routine for "*masterly inactivity*." You see this in the appointment, announced to-day, of Mr. Geddes, the former *bête noire*, who spoke of "*the exploitation of India by the British*," as one of the Famine Commissioners. It is private influence and enterprise that have gained for Englishmen and others the position that the European civilisation of to-day obtains on other continents. I see in this room the distinguished brother of a most illustrious man, Major Abbott, whose liberality made him the idol of the people in Hazara, whose name is still a passport to Europeans in many parts of that and other districts, and who did not view, without misgivings, the odium which the encroachments of the Maharajah of Kashmir on one of the Dard countries, that of Chilás, had already begun to throw on the English name among the hill tribes so early as 1851.

With regard to the country of Kafiristan, there are maps here which are, necessarily, more or less incorrect. This map, perhaps, is moderately good, and here you see the special country of the Siah Posh, the tribe, a representative of which is here to night, and who is a nephew of that famous general Feramorz. There, round Kafiristan, you have first the Nimcha races, or half-Muhammadans; and there you have, composed of that belt of Muhammadans, races that certainly profess to be very bigoted, but whose only sincere practice of religion as far as I have been able to ascertain, has been to kill or plunder travellers if they have the slightest thing worth robbing; their bigotry, as we from our Cabul experience know very well, can at any moment be subdued by their avarice. The country of Kafiristan, really embraces the whole of the country situated in that triangle between Kabul, Badakhshan and Kashmir, of which Peshawur is the base. In other words, I consider that the Dards themselves were Kafirs, as many of their legends, as their practice of witchcraft and a number of other things with which I need not trouble you just now, would seem to indicate. But Kafiristan in the most restricted sense, of course, would be only the country lying 35 deg. to 36 deg. lat. and 70 deg. and 72 deg. long. All these people are Kafirs, and to the present day Muhammadanism, except on the belt immediately between ourselves and these countries, sits very loosely indeed on the people. Even where they profess Muhammadanism it is not worth speak-

ing of; because when we find the bigoted Sunni rulers of Chitral forcing their own subjects to profess the Shiah or heretic creed of Muhammadanism, in order that they may have an excuse to their consciences for selling them into slavery, I do not think the religious feeling can be very strong. This is a fact which I mention incidentally, and which has enabled the ruler of Chitral to tide over a financial crisis in his own kingdom.

We have had all sorts of conjectures about these people, the Siah Posh Kafirs. The name is given to them by the Mahometans, "Siah"—black,— "Posh"—clothing, and "Kafir"—infidels. In fact, Kafirs are anybody who do not believe what the Muhammadans believe, therefore the name, to which no particular ethnological weight need be attached. These races call themselves rather by their villages and other local designations, such as the people, or, if you will, the Kafirs of Katár, Waigal, etc., etc.

The authorities on the subject are as follows:—We have the account of Mulla Najib quoted by Elphinstone; we have a short statement made by Burnes; we have a most admirable chapter by Masson, a man whose great services were ignored at the time, and are forgotten now. We have a philological chapter by Dr. Trumpp on three supposed Kafirs who came down to Peshawur. He spoke to them for a few hours by means of an interpreter, and although the necessarily scanty information thus obtained, apparently justified Sir George Campbell (the originator of my mission to Dardistan in 1866) in believing the dialect to be very closely allied to Latin, still, on further investigation, it turns out to be one of the numerous Kohistanee or hill dialects that are spoken just between our frontier and that particular country. Raverty takes Dr. Trumpp to task. I only saw his review of the dialect a few days ago, and I coincide with it. I may say that I have myself written down over a thousand words of that dialect. It is not a Kafir dialect at all, but I do not consider that Raverty was justified in the onslaught that he made on so eminent a philologist as Dr. Trumpp. Circumstances being taken into account, what Dr. Trumpp did was very valuable indeed. Then we have Lumsden, who had three Kafir guides. Lumsden interested himself very much in them, and also collected a vocabulary. These men as I have said, were murdered on their way back to their country, so that the man you see here to-night is probably the only surviving Kafir who has reached India. Bellew, I believe, refers to the Kafirs, and Wood mentions them incidentally. Fazl-i-Hakk, a native missionary, was sent by the Church Missionary Society, and you will find a full account of that expedition in the number of the "Church Missionary Intelligencer"

for 1865. He was exceedingly well received, a proof that they will receive Christians well, the Kafirs only wanting to be instructed. Colonel Macgregor has compiled from all these sources that I have mentioned, which, with the exception of Masson and Lumsden, are superficial and incorrect, a kind of statement for his "Gazetteer"—and finally there is what I have got myself, which is confined to the following sources. On my first tour I happened to get two Kafirs, who had been taken prisoners in the wars of our feudatory, the Maharajah of Kashmir, with Chitral under Aman-ul-mulk. These two men stayed in my house for a considerable time, and they are represented on that photograph of the Dards, which I now exhibit on this table.

Dr. Trumpp says that if you were to dress the Kafirs as Hindostanis, you would not know them from natives of the plains. I do not quite agree with that; look at the men on the photograph. I do not think they are Hindustanis; one of them had blue eyes; all were actually dressed as Hindustanis. Then I have had a Nimtcha Kafir, that is, a half-Muhammadan. These half-Muhammadans are people who keep up the intercourse with the outer world between the Kafirs themselves and the Muhammadans; of course they must have some communication, and these people who are called Nimtcha, or half and half, keep up that kind of communication, and the little trade there is which passes through their hands. (I repeat that the light thrown on the Kafirs by General Lumsden cannot be too highly valued. I suppose that Lumsden and Masson will carry off the palm with regard to that question, although, as I said before, it altogether amounts to very little.) From these three men I collected large vocabularies, and from the man who is here now I have derived other information. Here is a heap of papers containing the information thus collected, and I hope an opportunity may be given to me to go still further into the matter on some future occasion; at present all I can do in dealing with so important a subject is to speak generally; but I would say this, that the time has not arrived for the expression of any theory. It seems to me that the work can very well be divided between the learned men of Europe who theorise, and the men of India who collect the facts, and although it unquestionably may show a lower type of mind, not to be able to grasp the affinities between words of sixty different languages, and to find out that "filaloo" and "Bannu" must be identical, and Noah and Fohi could not but be the same names, still the work must be divided. I have chosen rather to be satisfied with the state of uncertainty in which we are, and to add one small fact after another, if possible

than to commit myself to any theory, such as the one to which, the other evening, an attempt was made to commit me, by a suggestion that perhaps the Kafirs were the lost tribes of Israel: they may be, but we do not know enough to justify us in that view.

The tribal divisions of the Kafirs are some say nine, some twelve, and others a still larger number. The Kafirs that I have had and the Kafirs of whom I have heard belong in my opinion to the following tribes (there may be more, but that is all that I know). First, the Kalásha Kafirs who are living under the paternal rule of the king of Chitral, whose management of the finances I have mentioned to you before. These are the Kalásha or Bashgeli Kafirs. They speak the language which I think, for all practical purposes, both of philology and for the use of travellers, I have committed to writing. I have not the least doubt in my mind that if you wish to penetrate into Kafiristan, your best course will be to go through Chitral, and then with your knowledge of this Kalásha language you may be helped on further. If you know the Kalásha language, you can go down, I think, all the length of the Koonar River, from Little Kashkar to Asmár. From Chitral you find your way into the heart of the country, but as I said before, I think the whole other side of the Koonar River is not Chitral at all, but belongs to Kafiristan proper. That is *one* tribe at any rate having a language of their own.

The second division is the tribes on the frontier of Lughman. They speak a different language, and profess different traditions. A member of a tribe of Kafirs of that frontier is in my service at this present moment. Thus we have at any rate two distinct dialects and, I fear, two distinct sets of traditions, of religion and of customs; if I have an opportunity I will go into that presently.

Then with regard to the other tribes that are mentioned and of which we have vocabularies, for instance, Lumsden's vocabulary and others, I think we are perfectly justified in assuming these to belong to a third and also totally distinct tribal division, that of the Kafirs of Traiguma, Waigal, Katár, Gambir (?). Beyond that there may be more, but I do not know anything about them.

Then with regard to their origin, we hear a great deal about their Macedonian origin. Now the looseness and vagueness of everything derived from Muhammadan sources cannot possibly be described. If a man is called Harût, his brother is sure to be called Marût; derivations are coined in the most extraordinary manner and without the slightest pretence to accurate knowledge. If Alexander the Great was a great man, he, of

course, must have been a prophet, and if he was a prophet, then, of course, they are descended from him. That kind of conjecture goes on; there is not the faintest endeavour to establish statements on a sure basis, and although there is not the least doubt, as I hope to show some evening by the production of the Græco-Buddhistic sculptures which I excavated on the Panjab frontier, that the Greeks had a great influence on the whole of the "triangle," yet the mere assertion that these Siah Posh Kafirs, amongst others, are descendants from a colony planted there by Alexander, must remain an assertion until it is proved to be a fact. Their own traditions do not bear that out, in fact they never heard the name of Alexander. Among the neighbouring races, those that can read a little, perhaps get hold of some Moonshée, whom fate may have driven up there and rendered crazy, and he may give them some notions of "Secundarwith the two horns," or "Secundar, the conqueror of the two worlds," but that is not enough to establish a Macedonian descent. The Tunganis are also supposed to be Macedonians; they do not claim to be descendants direct of Alexander the Great, but of his soldiers—that is possible enough if the soldiers were there, and stayed any length of time. But you saw a Tungani, Niaz Muhammad who was here; he was a man with marked Chinese features, but I do not know whether he struck you as a Macedonian. He did not strike me as being one. On the other hand, we have historical evidence of the reigning families within this century, professing to be descended from Alexander the Great. We know also that the now displaced reigning family of Badakhshan claims that direct descent; the present have not been long enough in possession to do so. The ruler of Chitral calls himself Shah Kator, from the name of his grandfather, an usurper and soldier of fortune. Of course there are heaps of conjectures about that; the Shah Kator at the beginning of this century claimed to be descended at once from Cæsar and Alexander the Great. I may say incidentally, talking of Shah Kator, that the seal to the letter (produced by the Kashmir authorities in self defence,) that bore the authority for the murder of Hayward, was supposed to come from the ruler of Chitral, on whose seal that name would, probably, always be found. It was first adopted within this century by his grandfather. But on the seal in question authorising the murder of Hayward, the word "Shah Kator" does not occur. I mention this as an incidental fact on which I have no doubt I shall speak more on some other occasion.

The second supposition is that they are Zoroastrians. There is, no doubt, that after the murder of Yezdegerd at Merv, the Arabs pressed on Badakhshan, forcing the fire-worshippers into the

hills. I am afraid I am going to commit myself a little more perhaps in favour of their being Zoroastrians, although I do so with very great diffidence, but I will say what people allege in favour of the view, that they are descendants of the fire-worshippers. (I hope I have made it clear, that the Siah Posh Kafirs know nothing of Alexander, but that the surrounding dynasties have some sort of claim.) There are the Kafir names: you must have noticed when the Shah of Persia was here, there was Nasyr-ud-deen, and Barkat Ali and other names, derived from Arabic roots chiefly, but I do not think there was a single Persian with him called by any of the ancient Persian names; now these Kafirs are called by those names. I do not say that much importance ought to be attached to that, but it is a fact that they have these old Persian names—and where do you find them again? You find them amongst the Parsees with the *honorific* “ji” at the end. Thus you find the great Rustam becomes Rustomjee. The great name of Kaús becomes Cowasjee, Noshirwan becomes Nusserwanjee, Feram, Framjee, and so on—we have them amongst the Parsees and we have them amongst the Kafirs. What wonder then that these Parsees should be so very anxious to establish some kind of affinity between themselves and these Kafirs? When this man got to Bombay he created a considerable sensation, in fact throughout India he did so, because he was so very *different* from the natives of India, as regarded his whole bearing, his military appearance and his black goat-skin dress in which he looked a far less civilised being than he does to-night. They wanted to make out that here was a Zoroastrian, and they got hold of some member of a wandering tribe, who had pretended to be a Kafir, and they confronted the two, and it turned out that the other man whom they had fed all this time on the strength of his being a forlorn brother of their race, knew nothing at all of these countries, but that he was a mere vagabond, one of those vagabond races in Khorassan of which there are so many. This man in Bombay found it to his advantage to pretend that he was a Zoroastrian. There are the *names*, that goes some way; I do not know whether the feeling of the Parsees on the subject is a proof. It is also supposed that books exist in Kafiristan bearing out the view of their Zoroastrian origin. I disbelieve that *in toto*, because no Kafir that I ever heard of knew of writing, except he had been a slave captured and brought to the empire of Cabul, and had picked up some knowledge of writing there.

Then again there is a conjecture of Lumsden that they were driven from the plains of India into these hills. I do not hold that either. They are certainly not Muhammadans, they are not Hindus; they eat beef, they do not burn their dead bodies;

they have no knowledge of the Hindu deities with two exceptions that I will mention; they do not look like Hindus; and besides history does not bear it out; although it is very true that the Sabaktegins did rather come down upon the Hindus, and broke the idols, and also caused a great many of the Buddhist sculptures to be buried; but we find in the account that he *was fighting with the idolaters of Katar*, namely, the place from which this man comes. So that they were distinct from the Hindus with whom he also fought. I do not think they were driven in from the plains at all. Either they were driven in from Balkh, about the time when the Arabs got hold of the country and drove in the fire-worshippers, or else they are, what I imagine they are, aborigines, talking languages, sisters of the Sanscrit, not derivative from the Sanscrit. Probably they are Dards. This has given rise to incidental conjectures such as that these men are Arabs. The most eminent tribe in Arabia was that of Koreish from which Muhammad himself came. Of course, nothing was easier than for the Muhammadans, or even for the Kafirs themselves, to claim an Arab origin, as the Arabs had been "somewhere" about there; therefore, they called the Kafirs Koreishis, possibly on the "lucus a non lucendo" principle. I think they are aborigines, and that if they are not the ancestors of our Aryan race, they are certainly in an equal relationship as far as languages go with the Sanscrit.

I am sure I have taxed your patience beyond the limit of endurance, and so I will conclude, although there is naturally much more to say. I said before that they were not Hindus. They expose their dead in wooden coffins on the tops of mountains, and that would be something like what the Parsees do in their towers of silence. The Hindus, of course, are very anxious to claim them as their brethren, but I do not think the Kafirs look upon them as brethren at all. The two men that went through Kashmir and to whom I made some short reference just before, certainly mentioned to me the names of Indr and Mahadeo, but, on coming down to the Panjab, they had no doubt been tampered with, as regards their religious opinions, on their way through Kashmir, and therefore they said they knew these Hindu deities; yet when I asked them to mention a prayer, they could only mention this one:—"O Ruler of the seven heavens, the sun and the moon, give us plenty of riches." That was all, although they did mention the names of Indr and Mahadeo. There is a tendency to believe that the Hindus do not proselytise. I am not at all sure that this is the case. Of course, nobody can become a Hindu in any recognised caste, but as long as he will form a caste by himself, and fee the Brahmins, I have not the least doubt the difficulties of being admitted a Hindu could be over-

come. And in the case of the Maharajah of Kashmir, I have noticed the Buddhists who are the downright enemies of Brahminism, were beginning to be indoctrinated with Hindu notions, and in Ladak and Zanskar they were made to begin to think themselves Hindus, and it does not seem to me an unwise course on the part of the Hindus, because their religion is materially encroached upon by the Muhammadans, and I suppose they are just now at any rate blindly following the law of self-preservation and trying to amalgamate all idolaters, or rather all non-Muhammadans into one general community, as opposed to the Muhammadans.

Now with regard to this man, I do not know whether an opportunity will be given to me in this or in some other place to translate an account of his adventures through Central Asia, in company with the present Ameer of Cabul, to whom he rendered services. They are very interesting, and they tell us a great deal about countries about which we know very little. For instance, he can tell us a good deal of whether Faizabad and Badakhshan are one or two places. He can tell us about the routes to a very great extent, and can give a mass of most important information, of a miscellaneous kind certainly; but information which will tell us whether we were wise or unwise in so strongly identifying ourselves with the cause of the Ameer of Cabul, of whom, by the way, I may mention a very pleasing circumstance which I had communicated to me to-day. It appears that he is starting a native newspaper on his own account, called the "Sun of the Day." Thus for the first time in history, journalism will find its way into Cabul. It will not be very independent, you may imagine, but it will be something, because he will not be chronicling in that Journal, at any rate, that when he invites a chief to dinner he strangles him afterwards. That will be omitted, and the fact of such omissions, and only really praiseworthy acts being spoken of the Ameer of Cabul, will gradually lay the foundation, certainly of a very weak public opinion, at first, but of some public opinion, which may grow and which may do more than he at present anticipates. To return to this man; he feels very strongly on the question of slavery. I think he was captured when quite a boy. Although he has rendered loyal service to his captors, which is a characteristic of that race, renowned all over Asia as the best and most faithful of servants, still he feels deep hatred to them for having captured him; and in recounting the deeds of his most illustrious uncle, General Feramorz, he has mentioned to me with great indignation how it was when the man who had risen to the chief command of the Ameer's troops was murdered in the foulest manner, his murderer said, "Well,

what after all is it, he is only a slave, and I, who am a brother of the Ameer of Cabul, shall not be punished by my brother for murdering a slave, although he may have conquered these countries for my brother." That is the disparaging way in which a Muhammadan spoke even of Feramorz. The Kafirs are never converted really to Muhammadanism : they keep to their own beliefs which are very slight indeed, and of which I may say more perhaps by-and-bye.

Referring to this man's narrative, it seems that when the Amir's son, Yakub Khan, the man probably to whom Kabul will belong some day, because the present boy whom we are supporting is merely in the hands of a very small faction and has no footing in the country at all, who is in fact not descended from any distinguished stock—when Yakub Khan rebelled against his father, the following took place, to quote the words of the Kafir present to-night. "Yakub Khan at once seized the opportunity of taking Herat; I was appointed his special orderly. When Feramorz heard of the capture of Herat, he advanced with a numerous army, to Ard Asgand, which is near Herat. There the two armies met and fought, I was again wounded by a ball in the thigh and the wound often reopens. This was, among all the fights I have seen, a really good battle in which many leaders were killed." As a rule, Afghan battles are contemptible skirmishes, beginning with a lot of braggadocio and ending in a flight. "Fateh Muhammad Khan, the Amir's nephew, and his son and many great men were killed in this battle. In the tumult that raged, Feramorz wrote the following touching letter to Yakub Khan. 'I am as much your father's servant as your own. If you are killed, the Amir will grieve and what shall I say to him? Cease this unnatural strife. Enough and valuable blood has already been shed. If you however will fight, I am ready.' Yakub Khan replied by word of mouth, 'I am myself setting off to see the Amir. You are a slave, who are not authorised to give me advice.' The battle then ceased. Yakub Khan went off to his father at Kabul with a few Syads and a Koran on which to swear loyalty. When Aslam Khan saw this he thought that if he murdered Feramorz, his brother Muhammad Hussain Khan would, on hearing of it, slay Amir Shere Ali (Aslam Khan and Muhammad Hussain Khan were brothers by the same mother). In this way he thought the army and Herat would fall into his hands. Yakub Khan would be helpless as he was on his way to Kabul, with only a few Syads."

That is how in these constant intrigues nobody is certain for a moment. Men who go together separate on the field of battle, and exchange their fortunes very often without the least preme-

ditation; but simply as savages seize the moment. "Hussain Khan would take Kabul, and he Kandahar and Herat. This matter had been arranged by Aslam Khan, before he set out against Yakub Khan, and he had laid a mine from his house to that of Shere Ali, and given instructions to his brother to fire it as soon he heard of the murder of Feramorz. The Amir's army was at Sabzawar. Aslam Khan now arranged matters with Hasan Khan, commandant of the guard and his foster-brother, and with Ghafûr his cousin, that when he had retired to his tent after dinner, as he and his guest Feramorz were taking tea and playing at draughts, Ghafûr should shoot him from the Kharkhana (a hut made of thistles, and which, when watered, offers a cool resting place during the day), where he (Ghafûr) with the connivance of the commandant had concealed himself. The bullet struck Feramorz; Aslam Khan threw himself on him, tore his clothes, cried and said, 'Oh such a general, and to be thus killed! Alas! who has killed such a hero.' The sentinel, attracted to the place, called out, 'You dog, who else, but you, has killed him in *your* tent.' I rushed in, for Feramorz was my aunt's son, and caught Aslam Khan by the throat. Then came in Islandiar Khan, colonel, also a Kafir, and Haji Faulad, colonel of the mounted artillery, and Changez, also colonel of artillery, all Kafirs, rushed in. Mulla Kurratulla Khan, a Hindustani general who has a great command, and Muhammad Alam Khan, nephew of Dost Muhammad Khan (who fought at Multan and in Turkistan), also came into the tent, we wanted to cut Aslam Khan's throat, but Feramorz said, 'Do not kill him, but bring him to the Amir in chains for judgment?'" Now it is something, when you consider the savage life which they lead, uncertain of its retention for a moment, and the passions of these people, to notice the conduct of Feramorz before the battle began in trying to stop the strife, and his conduct in not allowing the indiscriminate slaughter of the men who had caused his murder. "He had scarcely said so when he died. Such a man as Feramorz is indeed rare. We struck off Aslam Khan's turban, put him crossways on horseback in chains and sent him off to Kabul. We arrested the commandant of the guard, Hasan Khan, who said he had seen Ghafûr fire the shot, and Ghafûr, when confronted with Aslam Khan, said he would have been killed (such had been the threat); had he not killed Feramorz. Aslam Khan now admitted being the instigator of the murder, but said, 'he is only a slave and the Amir will not kill me for it. What is it after all?' We kept Hassan and Ghafûr in chains and the army was placed under the Hindustani general. When Aslam Khan arrived at Kabul, the Amir did not send for him, but received his explana-

tion, which was to the effect, that he had been prompted by jealousy connected with some unnatural passion. This is untrue, as Feramorz was never guilty of such vices." Then, to give an idea of the way services are rewarded, his wife was given afterwards to a common Sepoy. "Aslam Khan was detained in chains in one of the offices of the Amir, and his brother was also thrown into the same prison." The fact of the mine had been betrayed. "Now the army came to Kabul, the Amir and Yakub Khan having made up matters. Aslam Khan had alienated the Amir from his son, and as the Amir had given all the power to Aslam Khan and Hussain Khan, Yakub Khan felt hurt and therefore had left Kabul. Aslam Khan wanted to usurp the kingdom, and when Yakub Khan used to come to the Durbar, the Amir would turn his face away; well, after three months of very severe treatment of the two brothers in prison, their two other brothers, Hassan Khan and Kasim Khan (all the sons of one prostitute) offered to the Amir to kill the prisoners themselves! The Amir who could scarcely believe them, sent Rustem Khan, treasurer, and General Daud Shah Khan, and eight orderlies with the two to see whether they would really kill their own brothers. At about nine o'clock in the evening the two went to the prison. The Amir's people stood outside. The two went in, each throwing a waistband round the throat of a brother, and dragging him hither and thither, throttled him. When they were dead, the orderlies buried them in their clothes, without any rites, on the spot. The Amir did not wish to bear the disgrace of himself ordering the execution of the brothers for the sake of the slave Feramorz. The Amir then sent the two murderers to the English to take care of." That is the way in which he got rid of his brothers, and the two murderers he sent to us to pension.

I think, gentlemen, that I have said quite enough to stimulate those who care for the abolition of slavery, those who care for the spread of their Christian religion among a people waiting to receive it, and those that care for the cause of increase of scientific knowledge, and to make them feel that the hour that they have given to the subject has not been altogether unprofitable.

DISCUSSION.

Mr. DREW: I do not like to trespass long on your time for this reason, that I know very little of the subject that Dr. Leitner has so well brought forward; but since I have been on the frontier of these parts, I may say a few words. With regard to the different theories as to the origin of these Kafirs, I am inclined, as far as I can form any opinion at all, to the last one that Dr. Leitner brought forward, namely, that they are a branch of the Dard race. Certainly, the

evidence with regard to their connexion with the old Persians is strong and not easy to get over ; at the same time, from my own experience of the few individuals I had the opportunity of seeing, and from what one generally hears of their characteristics, on comparing them with the Dards, with whom I am pretty familiar, I think, on the whole, the evidence tends that way, and it seems to me likely that if the inquiry were further followed out, we should be able to prove more distinctly than now that they are really closely connected with the Dards. I do not think I can say anything more with regard to it, as we have had so very few opportunities of meeting these people.

MR. TRELAWNEY SAUNDERS: I think we are exceedingly indebted to Dr. Leitner on many grounds for the subject that he has brought forward to-night, and has illustrated in so able a manner. I must remember that I am addressing an Anthropological Society, and therefore I will proceed to remind Dr. Leitner of a statement made by Lumsden that throws a very distinct light on Dr. Leitner's own conclusions, that these people are Parsees—namely, their mode of burial. Lumsden tells us that it is the habit of these Kafirs to put their dead in boxes and expose them on the tops of high mountains: much like the Parsees of Bombay bury their dead to this day. Nothing to my mind would be much more striking than this identity of the funeral rites, in spite of conflicting local circumstances; for the Parsees of Bombay not having the top of a mountain to bury their dead upon, build high towers instead. With reference to the Kafirs being refugees from the plains, I think Lumsden intended it to be understood not that they were refugees from the plains of Hindustan, but that they were refugees from the surrounding low country. They have really chosen the very heart of these mountains, the very last and most secure refuge that these ranges afford. That is pretty well proved to us, if not exactly, by those who have advanced nearly to the country; at least, by those on the one side who have reached its confines, and those on the other who, with the eyes of science, have been able to fix the positions of the peaks by instrumental observation. We have for instance the description of the passes that touch upon the north western confines of Kafiristan, by the expeditions of Alexander Burnes; and then we have the observations by the Trigonometrical Surveys of the altitude of the range which you see on the eastward of the plateau in Lumsden's map. The ranges on the eastward of this country rise from the valley of Chitral, then descend westward to the loftier valleys of Kafiristan. The height of those peaks was over 16,000 feet, and the valley of Chitral itself, at the pass by which Kafiristan is entered, is only between 2,000 and 3,000 feet high. Timur made an attempt to pass into this country on the north west, but with the loss of a very considerable force; and since his time no potentate has attempted it. There can be no doubt that the Kafirs have been quite persevering in their endeavours to excite a friendly feeling on our parts; and I ask myself often, whenever I think of these people—of the position which they occupy in the

Hindu Kush, the commanding position they occupy, dominating the whole of the surrounding country—I ask myself whether the same reticence and indifference would be manifested towards them if they made their approaches to another people, who are advancing towards them from a northerly direction; and I ask myself how our strategical position would be affected by the establishment in that country of the influence to which I have alluded. At present, Sir, these regions are in a very peculiar state. We have on one side the British sovereignty, on the other side of them the Affghan sovereignty, and beyond, what? The sovereignty of Bokhara, which we may consider to be identical with the Russian sovereignty. Now what have we in the space thus surrounded? Well, we have got a population of this character, that, whatever value we may attach to the claims of their chiefs to have descended from Alexander, the extraordinary permanence of the population of those mountains is undeniable. While the rest of Asia has been repeatedly overrun by invading hordes, this population has been very little affected by such movement. Dr. Leitner says himself that he considers them to be aborigines. I would scarcely pretend to form an opinion of my own against such an authority as Dr. Leitner, still I do not think people choose mountains for their residences till they are driven out of the plains; and, therefore, I am rather inclined to think that he is more correct in considering that they are refugees from the plains.

Dr. HYDE CLARKE: I may attempt to say a few words with regard to Dr. Leitner's most interesting paper, and touching a subject which he has far from exhausted. Dr. Leitner has claimed the humble merit of being simply a collector of facts. I think it is only due to Dr. Leitner to say that in that capacity he is able to render and is rendering invaluable services to science. It is one thing for a man to collect facts loosely and indiscriminately; it is another thing for a man having the scientific attainments of Dr. Leitner to bring to bear on each fact that he collects a vast amount of knowledge. With regard to that portion which he has more particularly touched upon—the linguistic portion—many of us know that Dr. Leitner himself is acquainted with almost every language that is known in the district, from the plains of India to Turkestan; that he has a practical acquaintance with the whole of those. There can be, therefore, no greater service to science than when he collects for us materials on which we can rely. And what are those materials to preserve? They are the materials which will really enable us to judge the early history of the Aryan race; of those pioneers of it to whom no sufficient attention has been turned, while our studies have been devoted to the later periods of its history. In an anthropological point of view, these data are of importance. They are of interest to us in this Institute, because he has shown us in this instance that our science and our studies are of a practical character. If, indeed, the discussion has to a certain extent diverged into a political channel, it is because our researches are intimately connected with the welfare of tribes and government of nations. Mr. Clarke observes that, as Dr. Leitner has

referred to his identification of the Kajunah as a prehistoric language, the Kajunah may be referred to as an element in determining the question of the Dards being aborigines. So far as the language is concerned this may be regarded as unlikely, because the Dard being Aryan is modern and intrusive on the Kajunah. It is necessary to ascertain whether physically the population is directly descended from the prehistoric Kajunah, or whether it is a supercession by Aryans, with evidences of Kajunah survival.

The PRESIDENT: Although the hour is rather late, I think it would be as well if I should request Major Godwin Austen, who has spent a good many years in the hill country of India, to favour us with some observations upon this subject.

MAJOR GODWIN-AUSTEN: I have never been nearer to that part of the Himalaya range than Astore and Skardo, therefore I know very little of the country under review; nor have I seen before to-day any of the men from that part of the world. The paper we have heard is an exceedingly interesting one, more especially, I think, as regards the lines of route which may be eventually taken from the Peshawur frontier to the side of the Oxus across the main range. No doubt, the most direct line through that part of the country will lie over the passes of the Hindu Kush.

Mr. WM. VILLIERS SANKEY: I am exceedingly pleased to hear so interesting and so instructive a description of the characteristics of the country, and of the people round about the frontier of our Indian Empire. Nothing could be more admirable than the very extraordinary details which we have had placed before us in so concise a form, in such lucid language; and they will be exceedingly useful. As Russia is close upon our frontier, I believe it most important that facts of this kind should be collected, and those facts seem to me to be extremely conclusive in themselves as to the attitude we ought to assume. With regard to those border tribes being driven from the plains there is one question, and that is respecting their mode of burying the dead. It remains to be seen whether they themselves did not retire into those mountains for the sake of not being cut off in the plains, and with a view of being able to follow out that particular custom of exposing their dead on lofty summits, which they seem to consider as necessary to the preservation of their religion.

The principal reason I have for speaking is, that more than thirty years ago I proposed a direct route, *entirely by land*, from London to Calcutta, NOT A SINGLE PORTION OF IT BY SEA; and that has been the origin of a great many different projects for making a railway across the Channel, the Bosphorus, and various other portions of the route which are more or less intercepted by water, and which were all originally part of my scheme. My project is and was entirely by land, and I still persevere in endeavouring to have it carried out. Dr. Cline, Assistant Comptroller-General of India, who is sitting by my side, suggests that, in order to the prosecution of that idea, a portion of the line might well be made *between our Indian network of railways and the Persian territory*, where that line is to extend which is to be made by the influence of the Shah's late visit. I sincerely hope that his

suggestion may be approved of, because it will be an earnest of my great line being entirely carried out. I do think that discussions like these tend usefully to facilitate such operations. The great point is to know the people who surround our frontier, to conciliate them as much as we can, and in that way to bring about that relationship between India and the metropolis of the world which I believe to be requisite as well as highly desirable, and which it would be dangerous for our Government to neglect to promote.

DR. LEITNER: I only wish to say a few words in reply. First, with regard to Mr. Drew, I am very glad indeed that he thinks that there is some weight to be given to the opinion that the Kafirs may turn out to be Dards; in other words, that my discoveries in 1866 are, as it were, completed by the explorations or investigations that I have made in 1872, so that they are all being brought under one great general name of Dards. In fact, I may say that the name Dardistan, which I believe I was the first to give, has been adopted by Mr. Hayward and others; and that, therefore, the name seems now to be accepted with regard to the countries of Chilás, Ghilghit, Yasin, Chitral, Hunza, and Nagyr. If the more comprehensive hypothesis now advanced turns out to be correct, then it would embrace very much more, and we should then have the whole of this country lying between Kabul, Badakhshan, and Kashmir under the name of Dardistan. Whether or not another hypothesis is correct, viz., that these countries of Dardistan proper are the Darada of Indian mythology would form a special inquiry. Mr. Drew is a good authority on matters connected with Kashmir. He has been to Gilgit in charge of a very important inquiry, where I had previously been myself, during 1866, when all the tribes gathered in order to resist the encroachments of Kashmir, and where I had to make my way as best I could to the fort, at that time in disguise. You may think it rather egotistical, but here is a portrait of myself in an illustrated newspaper, which may show you that a European may be disguised very successfully. I may also mention that when the commandant of the Gilgil fort asked me who I was, the fact of my having just gone unopposed over the fort, then in a state of siege by the Dard tribes, and seen in what a disreputable condition it was—full of dirt and the Maharajah's soldiers dying of fever, whilst the commandant was just able to open his eyes after an indulgence in opium—my natural indignation exceeded my determination to keep my disguise—orders having been sent to get rid of me—and I said "I was a European, and ordered him to clean out the fort," *which he did*. As to Timur, Mr. Saunders has made some important remarks, with some of which I agree. Timur obtained a partial success against the Kafirs. He advanced against them in two large columns, one of which managed to raise a fort, but, somehow or other, I do not think they went very far. He thought, however, that he had done sufficient, and he got the exploit inscribed, I believe, on a golden tablet, with the following words, "That he had subdued the tribes that even Alexander the Great could not subdue." So here seems to be something again

against the idea of their Macedonian origin. Then Sultan Baber, who came about one hundred years afterwards, struck up a friendship with them, because he himself was rather given to drinking, of which the Kafirs show a Christian rather than a Muhammadan fondness. With regard to Lumsden's and Trumpp's opinion, it has always occurred to me that Lumsden meant that they had been driven into the hills from the plains of India, and that is how I have read it. It seems to me that Trumpp tried to support himself by the authority of Lumsden, or that they supported each other. Trumpp thinks them inhabitants of the plains, and at Vienna, Prof. Frederick Müller thought also that they were inhabitants of the plains of India; but if Lumsden meant "inhabitants of the plains of Balkh and about there," then I should be inclined to agree with Mr. Saunders. We know as a matter of fact that Balkh has always exercised a certain influence on Badakhshan, because the necessities of hill life compelled the men to go to Balkh for many of their wants. Whether or not the secluded valleys of Kafirstan offer shelter sufficient to account for the existence of aborigines is another matter; but supposing that Lumsden's view was that they were the inhabitants of the plains of Balkh, then, of course, that would rather fall in with my conjecture about their Zoroastrian origin.

MR. SAUNDERS: Perhaps it would be convenient to the meeting if I say I do not claim for Lumsden that he specially alluded to the plains of Balkh, for he rather appears to allude, so far as he alludes especially, to the lower country to the south, and makes some distinct allusion in proof of his position, which I cannot quote from memory; but I have no doubt, your attention being drawn to it, that you will look into it.

DR. LEITNER: I am very much obliged to you. This is a most interesting point, and I shall be very glad to find that I have support in a matter of this kind from so great an authority as Lumsden. With regard to the change that should take place in our policy, I certainly quite agree with Mr. Saunders. The way in which things are going on now is most lamentable. Obstructiveness and red-tape and want of knowledge seem to be taken for impartiality and for good government. The more ignorant a man is on the subject, the more he thinks that he can be perfectly impartial, and so no doubt he can be in one sense. For instance, the last time I was in England I stated—I think it was at the Geographical Society—that the Abbot of Pugdal had offered to send his nephews as hostages to the British Government, in order to guarantee the safety of any traveller who might wish to go with him to Lhasa. The way this offer was brought about was this. The intrepid savant, Csoma de Körös, a Hungarian, whom, I think, *you* [addressing Dr. Campbell, late of Darjeeling] so well knew, lived for three years in that remarkable monastery of Pugdal, which is quite scooped out of the rock; and which looks like a temple of gnomes surrounded by their cells, out of which the Lamas emerge above and below, and at the sides of the middle dome. There he ate his rice and lived in a most abstemious

way, and probably effected the improvement I noticed—namely, the abolition of the convenient worship by the prayer-wheel. As for the Abbot himself, his contempt for the gods of Buddhism (for, in its present degenerate form, its teachers or saints are practically gods) equalled any contempt that we may have for idolatry. This is a great testimony to the influence exercised on a Tibetan priest by an European scholar. Csoma de Körös' dearest wish, which he did not live to carry out, was to penetrate to Lhasa in order to complete his Tibetan studies, and this wish the Abbot wanted to fulfil vicariously by offering to take any countryman of the "Pelingi dasa," or European disciple, to Lhasa. A regular choral service, antiphonal in its execution, is carried on in that very monastery; yet it seems that there is not much belief there, because when I asked a strange priestly guide, who brought me further on, whether the road was far, he said, "Nothing was far;" whether Buddha was anything, "No, Buddha was nothing." He was a complete Nihilist. However, when he ran the risk of being swept away by a torrent, I could not resist the temptation of asking him whether *that* was nothing, to which he did not reply. [In answer to an inquiry made by a visitor.] The fact is, Buddhism, although utterly subversive of the gods of Brahminism, has practically reintroduced them. There is Græco-Buddhism and Llamaic Buddhism. Now, Llamaic Buddhism has reintroduced the gods that Buddha got rid of. In fact, this subject may be carried farther, and nothing can be easier than to say that Pythagoras himself is, as his name shows, "Buddh agoras"—the announcer of Buddha. Some of the French missionaries were supposed to have lately gone to Lhasa, but we do not know anything about them or their visit—have never seen them. To go back to what I was saying, here was a good offer for the solution of a number of questions since the days of Huc and Gabet. The abbot said he would undertake to bring anyone to Lhasa, and was willing to leave his nephews as hostages, but I am not aware that this offer has been made the least use of. That the Russians neglect no opportunity of advancing their interests—and far be it from me to say that when we do nothing the whole world should do nothing—is proved by a circumstance which may be narrated to you by this very Kafir, that immediately after the conclusion of the meeting of Umbala, in which we made terms with the Amir of Kabul, and subsidised him, giving him money to equip an army, which he has never paid away, and to develop the resources of his country, which never sees our rupees, there came a Russian who was in close confabulation with the Amir of Kabul for a fortnight, so you see that the Russians do not neglect any opportunity and great credit is due to them for it. We ought to change the whole of our attitude with regard to frontier matters, for things are really very serious as they are going on now. These tribes are being hemmed in by Cashmir on the one hand, and by the Amir of Cabul on the other, who claims a lot of territory that never was his. His family was not very much, and they have had but very doubtful possession of Balkh. Even Dost Muhammad had very

doubtful possession of Balkh, and was himself a fugitive in Bokhara ; and now we have supported the claim of the Amir of Cabul even to Badakhshan itself, where, if there is any truth in the tradition of a descent from Alexander, it must be found in the royal house of Badakhshan. One disastrous result of our influence is, that as Muhammadanism increases, all these legends, these songs, these traditions of the Dards and Kafirs, which centuries of barbarism have respected, are swept away. Races who only wanted to be let alone, are edged on to the verge of exasperation, and infest the roads, because they do not want to have their children kidnapped. The Dards are being massacred. The women of Yasin, women who are as fair as Englishwomen, were massacred by the troops of the Maharajah of Kashmir ; and Hayward counted I do not know how many hundred skulls, when he visited the spot some years afterwards. On every side are there legends ascending to the remotest origin of Aryan speech and mythology ; but who knows that the accident of their being now partially embodied in the book (" Dardistan, Part III ") before you, may not have been a most fortunate event, for with Muhammadanism and its fanaticism closing round, legends are wiped out, traditions are lost, and I suppose the time may come when the last Kafir girl will be sold by her own father to a Muhammadan to avoid a worse fate for himself and her. This is the present state of things ; whilst, if we took the other line of conciliating and preserving the independent mountain tribes, we should then have friendly populations, open to our civilisation, and to our scientific inquiries. Supposing, however, that you do want to give to irresponsible feudatories all the power which their ambition desires, then insist at least on their behaving as civilised feudatories of the British empire should behave, and—as one proof of their sincerity, and some return for our money—abolishing that dreadful state of slavery which they support, either directly or indirectly. I was very much interested in the kind words that Dr. Hyde Clarke spoke. We owe Dr. Hyde Clarke a considerable amount of gratitude for having pointed out that the *Khajunâ*, one of the languages which I discovered, is one of the remnants of a group of languages spoken before any of the Aryan dialects developed into "the perfect" dialect, namely, the Sanscrit. Great service to myself, and also, I think, to science generally, has thus been rendered by Dr. Hyde Clarke. I wish that Mr. Sankey would carry a railway through this country. If the account of Jamshêd can be trusted, he says it is very easy to carry on a railway from the north, right to the foot of the Hindu Kush. He says the country above is a plain, and it is very easy travelling and all that, and I wish Mr. Sankey God speed, I am sure, in that undertaking. Then with regard to this Kafir, I have brought him just as I brought the other man, in order that he should remember this country, not by the kindness of one, but by the kindness of many. The influence that a single European can exercise is no secret ; it is gained by a little hospitality, and a little friendliness. I keep, I was going to say, my house open in India, but I remember that

these people get into one's compound, where our servants' houses are in India; so I keep my compound open for any visitors from or beyond the frontier; they come there and enjoy a very cheap hospitality, which, all through the year does not cost me £100, and they go and tell their friends and others of a European's hospitality, and so I get information from them. They go away and mention that a European has treated them well, and I think that does some good to explorers. Niaz, your late Yarkandi friend, is now set up, and is doing very well, and will remember us. I hope the present visitor will be shown some of our institutions, and will be taken a little by the hand. I have not the least doubt, that if Mr. Sankey carries his railway through that country, he will be treated with very great hospitality, at any rate by the Kafirs, whilst we, who have been kind to our "Macedonian" brother, will have the advantage of being deified in Kafir mythology, because they gratefully raise all those to the rank of gods, who treat them with hospitality.

THE PRESIDENT: I am sure, after the reception given to the excellent discourse we have had, it is quite needless for me to move that the thanks of the meeting be given to Dr. Leitner, for his very admirable address. I must for my own part say, I do not remember ever listening to any communication given before this Institute, of higher and more general interest, than that we have heard to-night. Its interest, as Dr. Leitner has well observed, is manifold; it concerns the physical anthropologist, as well as the philologist; the ethnologist and the geographer will also find in it points of the greatest value. And from what appears this evening, its interest extends in a certain degree almost beyond the legitimate subjects of the Institute, which has no concern with politics. But I must say, that all the observations that have had a political tendency which have fallen from either Dr. Leitner, or those who have spoken on the subject, are of the very highest importance, and such, I should imagine, as if brought before the attention of those in whom the destinies of this country are reposed, cannot fail to have a beneficial effect. The spirit in which they were offered is such as can give offence to no party, though it indicates a true and genuine interest in the people to whom Dr. Leitner's observations refer, a race, I should imagine from what has fallen from him, whose history must be very curious. With respect to their origin, of course I am not prepared to offer any observations, and must leave that to be discussed by Dr. Leitner at some future time. I was struck, however, with one observation that he made with respect to a tribe, I suppose not the same, in which he says that the women were as fair as Englishwomen. Does the individual, Dr. Leitner has been good enough to bring with him this evening, belong to the race to which he refers, or to some cognate tribe?

DR. LEITNER: I believe that further inquiries will show that they are cognate. This man is a Kafir and much darker than the Yasin women to whom I have referred. He has seen a good deal of fighting, and has been much exposed.

THE PRESIDENT: I am one of those who believe that ethnological evidence derived from language or religion is, in many cases, less reliable than that from physical characters; and it would have been very interesting indeed if we had had materials, which of course are not before us, to have discussed that part of the subject rather more fully.

MR. DREW: I have seen many Dards between Gilgit and Yasin much lighter than the present individual.

THE PRESIDENT: No doubt it is a question of degree, for I may mention, that even among the Marquesas islanders for instance, the women of the interior of the island have been described by writers as certainly quite as fair as Spanish or Italian women, and it is very likely that women may be found in a secluded mountain valley of a much fairer complexion, though belonging to the same race as the individual whom we now see. Before sitting down, in moving that the thanks of the meeting be given to Dr. Leitner, I must not also omit to mention the obligations we are under to Mr. Saunders, for the kindness and alacrity with which he procured this map for the purposes of the evening. I move that the thanks of the meeting be given to Dr. Leitner for his very interesting paper.

Dr. Leitner was accompanied by a native Siah Posh Kafir.

Thanks having been voted to Dr. Leitner for his communication, and to Mr. Trelawney Saunders and Mr. Wyld for lending maps on the occasion, the meeting separated.

DECEMBER 9TH, 1873.

F. G. H. PRICE, Esq., F.R.G.S., *in the Chair.*

The minutes of the last meeting were read and confirmed.

THOMAS GEORGE BIDDLE LLOYD, Esq., C.E., F.G.S., 6, Cecil Street, Strand; and Señor GONZALES DE LA ROSA, F.R.G.S., were elected members.

EDWYN C. REED, Esq., of the Museo Nacional, Santiago de Chile, was elected Local Secretary for Santiago de Chile.

The following presents were announced, and the thanks of the meeting voted to the respective donors:—

FOR THE LIBRARY.

From the Executors of the late HENRY CHRISTY, Esq.—*Reliquiæ Aquitanicæ*. Parts XIII and XIV, 1873. 4to.
VOL. III. B B

- From the AUTHOR.—A New Physiognomical Chart of Character. By Dr. J. Simms. 8vo.
 From the PUBLISHERS.—A Dictionary of Languages. 8vo.
 From Dr. HOFFMAN.—Mittheilungen der Deutschen Gesellschaft für Natur und Volkerkunde Oslasiens, July 1873. 8vo.

FOR THE MUSEUM.

From J. GOULD AVERY, Esq.—Two Maori Skulls, found in a cave near Auckland, New Zealand.

The following paper was read by the author:—

The HIEROGLYPHICS of EASTER ISLAND. By J. PARK HARRISON, M.A. With Plates xx and xxi.

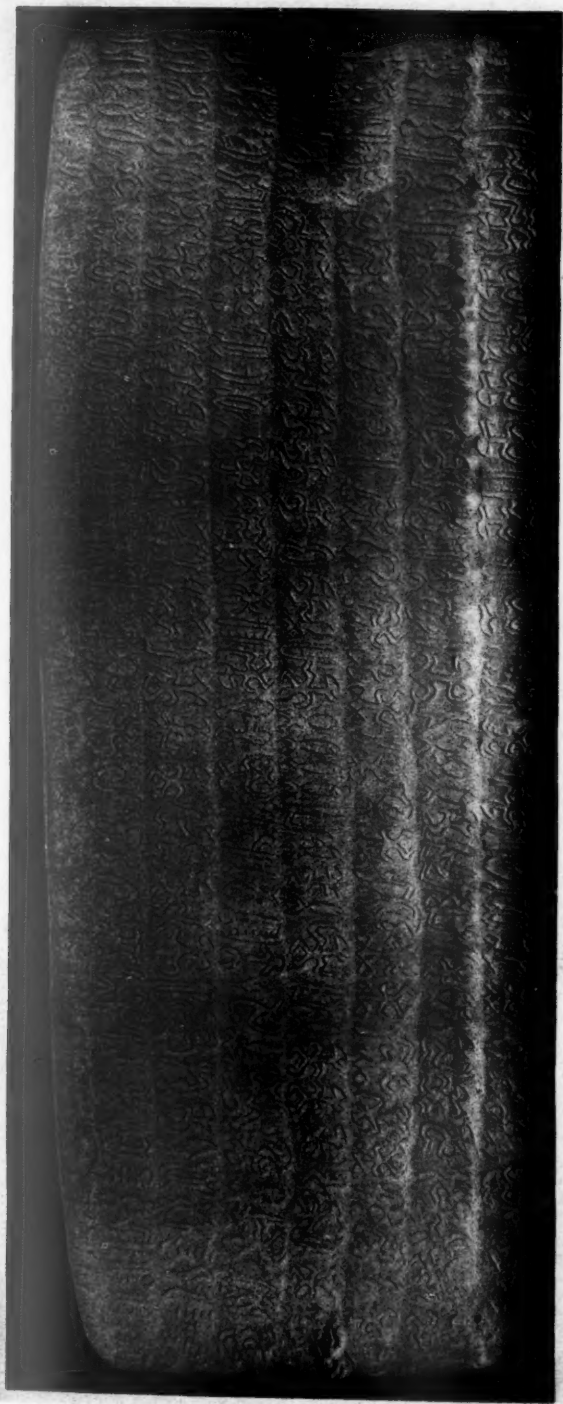
IN the spring of this year (1873), the cast of an incised tablet from Easter Island, the duplicate of one of those lately presented to the Anthropological Institute by Mr. Edwyn Reed, was exhibited at Burlington House by Mr. Lamprey, of the Royal Geographical Society, from whom I subsequently learned, that the French Missionaries in the Island discovered three tablets of hard wood soon after the visit of H.M.S. "Topaze" in Nov. 1868, in one of the stone houses, called by the natives "Taura Renga," where the kings or chiefs formerly resided.* Two of these tablets were entrusted to the captain of a Chilean corvette in January 1870, and they were soon after deposited in the National Museum at Santiago de Chile. The third was sent to Paris, but does not appear to have reached its destination owing to the war.

Paper impressions of the tablets at Santiago were communicated to the English Ethnological Society early in 1870. Owing, however, to injuries received in transit, and the want of sufficient information, a doubt arose whether they were anything more than stamps for marking the native cloth,—and this view, it appears from Petermann's "Journal," was adopted in Berlin also,† to which city copies had been despatched. Little attention has, it would appear, been since given to the subject, though casts subsequently made under Mr. Reed's direction were sent early in the present year to London, Berlin, and Cassel.

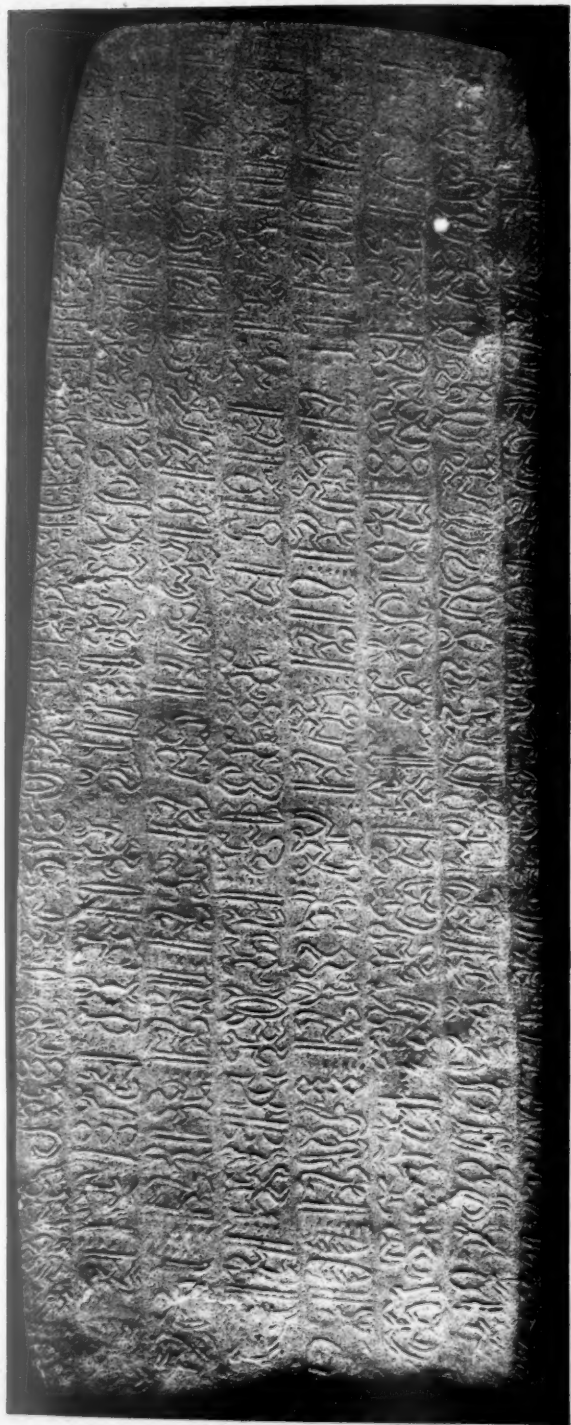
On a superficial examination of the signs with which the tablets are covered, an eye acquainted with Easter Island

* The photograph of a drawing of one of these stone houses, is given in Mr. C. Harrison's "Ethnographical Series," published by Mansell.

† "Mittheilungen," July 1871.



Incised Tablet, from Easter Island. Front.



Incised Tablet, from Easter Island. Back.

iconography would at once detect Herronias—(as the natives style the figures of bird-headed men),—Rapas, and other forms such as are cut on the back of the larger stone statue in the British Museum, and upon the heads of the wooden images which from time to time have reached this country, and seem so distinctive of Easter Island work. Similar forms are also said to be painted on the walls of the stone houses, and to be sculptured on rocks, and the tuffa crowns of the great images.* It was soon perceived, however, on a closer examination of some rubbings furnished by Mr. Lamprey, aided by frequent reference to the plaister casts, that there were, in addition to the figures above alluded to, numerous other forms engraved on the tablets, which have no types in Easter Island, but can be identified, with more or less certainty, as belonging to islands far to the West. It would seem evident that the native artist intended to represent actual objects which he had either seen himself or received accounts of from others who had crossed the Pacific.

The wood of which the tablets are formed was identified by Mr. Reed as that of *Edwardsia*, a species of *Mimosa*, which in Chile attains a considerable size; and, from seeds obtained from Easter Island, he ascertained that the tree exists there also. It was recognised previously by Mr. Palmer, the surgeon of the "Topaze," on the spot in 1868.

From the report sent to the English Admiralty by Commodore Powell, it appears that the Easter Islanders now make their paddles and diminutive boats of *drift-wood*, of which a certain quantity is carried to their shores by a current from the west; caused by winds which blow in those latitudes for six months in the year in a direction contrary to the Trades. The current is probably the northern limit of that shown in Johnston's Physical Atlas as "Mentor's Drift." It laps round Easter Island, and then joins the Chilean stream on its way to the Equator.

No tree was seen in 1868 upon the island the trunk of which was thicker than a man's thigh,—a dimension which would supply but little heart-wood. The historian of "Roggewin's voyages," 153 years ago, speaks of fruit trees being numerous, but does not specify their size; and Mr. Foster, the naturalist, who accompanied Capt. Cook, fifty years afterwards, alludes to shrubs only, at the most nine feet high. Yet there would appear to have been formerly larger trees, Mr. Palmer having met with old boles of considerable size in a state of decay. The tablets, therefore, may have been formed of wood grown in Easter Island, though it appears, so far as one can judge

* See Mr. Palmer's Narrative, "Ethnological Journal," vol. i (new series), p. 377.

from the appearance of the plaister casts, to have been used previously for some other purpose; as, for example, canoe planks, or the blades of paddles.

The two tablets are not of the same size. The smaller and more perfect one measures fourteen inches in length, by from $4\frac{1}{2}$ to 5 inches in breadth, and is about one inch thick. The corners are rounded and a good deal worn, and an indent or hollow exists on one face about $1\frac{1}{2}$ inches square. It is of some importance to observe that hieroglyphics are engraved in this hollow, in the same way as upon the plain surfaces. (Pl. xx.) The second and larger tablet is much twisted, and has been injured by fire in two places. It is 1 foot $6\frac{1}{2}$ inches long, by from $4\frac{1}{2}$ to 5 inches wide, and varies from half-an-inch to an inch in thickness. The sides are bevelled to a sharp edge in order, perhaps, to gain as much space as possible for hieroglyphics.

Eight lines of signs are engraved on each face of the smaller tablet, and twelve lines on the longer, but slightly narrower one. Between each row of signs there is a ridge caused by the union of flutes or sunken channels, and the hieroglyphics inscribed on these sunken channels are consequently protected from injury when the tablets are placed on a bench, or upon the ground. The width of the flutes, from ridge to ridge, in the smaller tablet, is seven-eighths of an inch; in the larger one, three-eighths of an inch. The signs engraved on the latter are consequently much smaller, and they are more delicately executed.

Before proceeding further into details, it will be well to point out some of the reasons which appear to me conclusive, that the tablets were not intended for stamping cloth. All the stamps of which there are specimens in our museums are in *relief*, and the patterns of great sameness. In the case of the Easter Island tablets, the signs are incised, and sunk, as above mentioned, in channels, so that impressions from them could not easily be made. Both faces of the tablets, also, as has been said, are covered with figures, as well as the bevelled edges and hollows, where no use could have been made of the patterns for stamping cloth.

Proceeding now to the description of the hieroglyphics; one of the first points which calls for attention is the singular arrangement, which renders it necessary for a reader to turn the tablets round, or change his position, at the end of every line, if the signs are read in regular order. This is owing to the lines of hieroglyphics being alternately *reversed*, a plan which appears to be unique.

Since, too, the signs in the top line of each tablet, on both faces, stand upside down (as shown by the position of the bird-headed men, etc.), it seems probable that the bottom line on

each tablet, where it will be seen the signs stand upright, is intended to be read first. However this may be, the bottom line in the smaller tablet, containing, as it does, a remarkable Procession, makes this a good starting point, even if it should prove eventually to be at the end instead of at the beginning of the story.

Holding, then, the smaller tablet with this Procession to the right of the reader, the indent already alluded to being immediately over the leading figure (see Plate xx), after reading the signs from right to left—this being the direction in which the heads of animals, as a rule, face the reader—it would be necessary to turn the tablet round at the end of this line, if the second from the bottom, where the signs are upside down, is read next in order. I propose, however, as it will save the necessity of turning the tablet at the end of every line, to read the *third* from the bottom after the first line, and so taking every alternate line up to the seventh, then turn the tablet once for all, and read the second, fourth, sixth, and eighth from the top in a similar way. This, I believe, will prove to be the easiest method, and serve a present purpose, even if, contrary to expectation, it should not be the one that is ultimately adopted.*

On a close examination of the casts, it appears evident that the tablets used not to be turned whilst held in the hand, otherwise the sides would have been worn as much as the ends, which is not the case. A tablet cannot easily be turned whilst held in the hand, unless one of the sides is grasped; but it may be turned without difficulty whilst lying on the ground, or on a raised bench, without touching the sides.

As regards the signs themselves, it is necessary to observe, first, that the figures, even in the tablet which contains but eight lines of hieroglyphics, are very minute;† they are less than three-quarters of an inch in length. It was impossible, then, for the native artist to give anything more than the general appearance of the objects delineated. The figures are, in fact, like things seen at a distance, which we recognise by their form, and not by the features, unless any chance to be unusually prominent: or, they are like shadow or outline drawings, in which, nevertheless, animals, and even different races

* The alternate reversion of the lines of hieroglyphics, as well as the ancient Greek method styled *Boustrophedon*, may possibly have been adopted to prevent the chance of missing a line, which sometimes happens in the case of indifferent scholars, when they have to carry their eye back to the opposite side of a page. It is easy, in the case of the tablets, to see by a glance at the position of the signs, which is the line to be read next in order.

† It will be found desirable to use a strong lens when reading the signs.

of men may be recognised, as, for example, in some of the smallest Egyptian hieroglyphics.

Though, however, we may feel perfectly sure that actual objects are represented on these tablets, it is difficult sometimes, at first, to recognise them, owing to the conventional way in which they are treated. Thus (it may be to economise space), fishes and canoes are set up vertically, and little or no difference is made in their size. So, too, the signs for turtles are placed upright, and are as large as men or trees. And in the case of the signs representing men, whether bird-headed or others, hands and feet are, as a rule, left out; as it would appear from the difficulty and trouble of engraving such small members when the figures themselves are less than an inch in height. But we find them introduced whenever it is desired to give expression to feelings and emotions, such as fear or astonishment.

Certain other conventional methods require to be explained; as, for instance, the elongation of one of the legs of a figure, where it is intended to represent motion, or speed in running: and the addition of a spear or dart to a sign; as, for example, when it is attached to a fish or turtle by a label, to signify that it has been killed or captured by spearing—though in other cases it may perhaps indicate the agent or captor.

After these preliminary remarks, I proceed to describe some of the more important groups or pictures in the smaller tablet, taking the signs in order from the right of the bottom line, and passing over the lines of reversed hieroglyphics as proposed in the early part of this communication.

Unfortunately, the first three signs in this line are almost obliterated, owing to the handling to which the wooden tablet has been, in the course of time, subjected. Comparing, however, the faint marks which are still visible, with more perfect signs in other places, there seems to have been on the right a column with two circles on each side of it probably, a "Sun-stone." Then two converging lines, perhaps to represent a canoe set on end, followed by a man with an Albatross' head (styled *Herronia* in Easter Island), who holds in his hand a baton or staff.* Another *Herronia* kneels behind with upraised hands; and a third follows in a standing attitude with the arms hanging down at his sides. Then there are two similar figures, and an animal (perhaps from its head and neck a fowl), conventionally treated,

* A staff from Easter Island was exhibited at the meeting. It is ornamented at the top with a bi-fronted head, having elongated ears. A staff of this kind is still used by the older men in this island as a mark of authority. It may be assumed that the staff represented in the tablets was ornamented in a similar way, but the carving was too small to be shown.

with a crest or comb on the head, and short wings, which appear in the hieroglyphic signs to be distinguished from arms by the containing lines meeting in a point, which is not so in the figures of men. The animal, whatever it is, is represented turning to the left, as if attempting to escape; it may be to symbolise that it was intended for sacrifice. Then follow in procession two more Herronias, in all respects like the third one. Then canoe lines as before, and another Herronia holding a staff, one of the legs being waived, as if injured (?). A seventh ends the Procession, preceded by similar canoe lines and a sign which is enigmatical, but which it has been suggested to me indicates the sea. Both the last figures have much flatter heads than the five in the first division of the Procession.

All seven Herronias are represented with extremely short legs in proportion to their bodies, and this is also a peculiarity in the wooden figures from Easter Island. The rest of the line is filled with hieroglyphics, amongst others a turtle with an arm attached to it, and a paddle with a circular top, of the exact form drawn by Kotzebue, as seen by him in Easter Island; but it is not, I believe, like any found there at the present time.

The next picture that I propose to describe is in the third line from the bottom. On the right there are three men with large balls, or projections, on each side the head. They are not in procession like the Albatross-headed men, but face the front—no doubt for the purpose of showing these projections, which could not be seen in profile. It can scarcely be doubted that the figures represent natives of the Pacific, who *greatly* enlarged the ear lobe. They are represented with shorter bodies, and better proportioned legs than the Albatross-headed men; and this is found to be the case wherever they appear in the tablets.

The third of the figures, from the right, is running or hastening towards four fishes of uniform shape, which, both from the form of the head and position of the fins, as well as from the regular order in which they follow each other, appear to be dolphins, floundering in shallow water. Separated from this group by a column, with three circles on each side, there is a figure, also with enlarged ears, armed with a club, of a form altogether different from any in Easter Island, but common in Fiji, and the Samoa-group. He is represented as running to attack a *snake* with a wide head, and a knob or knot at the end of its tail, very much as serpents are sometimes drawn on ancient monuments both of the old and new world.*



* The woodcut is taken from a rubbing of figures on the cast; slight flaws or imperfections in the plaister only being corrected.

It appears to be the *Enigrus*, which, I find from Mr. O'Shannessy, of the British Museum, is found in Fiji and some other islands of the West Pacific, though not a water snake. Its head is broad, and the mouth and throat highly distensible, and it is known to twist its taper tail into a knot. On the left is a figure like the last, also armed with a club, and running towards a bird with a large head and hooked beak, (which, since this communication was read, I conclude may be the *doden*).^{*} Then follow various hieroglyphics, including a tortoise or amphibious turtle, with its head adorned with symbols like the figures above described, and which probably have some sacred meaning.

Proceeding to the fifth line; amongst various signs, most of which appear to represent forms of animal and vegetable life, a man with enlarged ear lobes is seen running with upraised arms, and hands spread out in terror or surprise at the sight of an encounter between an animal, which stands conventionally upright, and a snake, which has seized it by the head or neck. The animal that comes nearest to this sign in the Pacific, appears to me to be the civet. Adjoining it are three crescents.

In the next picture (which is also on the fifth line), a man with a decidedly prognathous face, is represented as falling backwards, whilst endeavouring to escape from some animal with a long neck, a portion of which is seen projecting from behind an Albatross-headed man, who *holds a dagger or knife in his hand*. At a short distance to the right, with what may be meant for some plant between them, adorned with sacred symbols (perhaps the signs of "Taboo"), there is another animal conventionally treated, also with a long neck, and a spear or dart attached to its body by a label. This sign may possibly be intended to represent the same creature that we have seen attacking the falling figure, but now retreating, owing to a wound received from the Herronia with the dagger.

In the seventh line are various hieroglyphics, some of which are similar to Egyptian signs, *e.g.*, eyes and eyebrows, and a rope with dots or pellets on one side of it. The principal incident in this line is a combat between two animals, one of which appears to me to be a civet, and the other a bird like that in the Procession. To the left there are signs which may very possibly represent an octopus, a ray, and the bird called a darter (*photus anhinga*). They frequent the coasts of Asia and the seas adjoining.

Having arrived at the end of this line, we now turn the

^{*} A dodo was said, in the "Times," of last December, to have been caught in Samoa. A letter, subsequently, from Professor Owen explains that this must be a doden. I have substituted it for "an albatross," which the sign scarcely sufficiently resembles.

tablet round, and reading from the right of the second line from the top (the nearest in imaginary position to the one last read), we see a prognathous or dog-faced man squatting before what looks very much like two idols, one of which is represented as sitting with a small tree or branch in each hand, whilst the other stands beside it and holds one of the same signs.* A squatting figure, also with a prognathous face, appears to be making an offering. He is followed by a bird like a dodo sedent. Another dog-faced man, holding a hand up to his head, sits immediately behind, and then a pelican holding a fish.

Several fishes of different forms, and various signs and hieroglyphics, follow, *e.g.*, a hatchet with an ornamented handle, and a club with a small knob at one extremity, and a star-shaped boss, like many in the Solomon Islands, at the other. A man with large ear ornaments, holding an *Herronia* by the hand, appears to be associated with them.

In the fourth line from the top, several figures with prognathous or dog-like faces and high bushy hair, are represented holding hands and dancing. Then, in the middle of the line are numerous fishes, in the midst of which are two signs, formed of straight lines like a pillar, to each of which an arm is attached; on the right, with outspread hands, is another dog-faced man. Then comes a woman of the same type, dancing and holding a fish, followed by five other women, also dancing, *viz.*, two couples holding hands, and one dancing by herself. A dog-faced man stands in the middle of the line with an instrument in the shape of a U,—perhaps the hieroglyphic for a fishing net. One of the fishes, the capture of which appears to be celebrated in this line of iconographs is distinguished from the rest by a peculiar arrangement of the fins, which is not met with amongst the deep-sea fish which frequent the Pacific near Easter Island. The *cheilodipterus truncatus*, however, of the Solomon Islands, has, I find from a drawing in the "Cruise of the Curaçoa," precisely the arrangement of fins of which I was in search.

In the sixth line from the top is a sign which may be intended to represent the bread-fruit tree. Then two Albatrosses on each side of a column. Then, between two figures with prognathous faces (who each hold up an arm with the hand spread out), we see a sitting figure with enlarged ear lobes and both arms upraised. From the form of the body it may perhaps be intended for a woman. Then the sitting figure of a man, also with enlarged ear lobes; and next to him an *Herronia*, with a bow of Eastern type in one hand, and an arrow or dart in the other. His head looks to the right, but he appears as if about

* Or perhaps they are human arms.

to turn in the other direction to attack a creature like a pelican, conventionally treated, with which a woman with enlarged ears seems terrified. She sits with her arms raised. A dog-faced man with a spear attached to his foot is advancing from the left. Then follow several signs representing plants and animals, amongst others a tortoise or amphibious turtle, with a peculiar mark on its back; and a lobster. There is also a singular creature with a spear attached to it, and a bird very like a penguin, or gorfou.

The signs in the eighth or last line on this face of the tablet are unfortunately almost invisible in the photograph: I will therefore mention them all in the order in which they stand, describing the figures, as before, from the right, as follows:—

Two signs (worn and indistinct), like pillars; a fish; another fish; three indistinct signs; two crescents over a circle; a fish-hook (?) with a human head of a prognathous type; fruit or edible root (?); the same repeated; a compound sign of a type before considered as representing a plant or tree with a branch on one side and a sharp implement like a spear attached to it by a label on the other; two crescents over a circle; a ring or circle with flowing lines proceeding from it (like one in the adjoining or seventh line from the bottom); an instrument like a harpoon; a bird-headed man holding a tree or branch (?) with a spear (?) attached to it, in one hand, and some cutting instrument in the other; three crescents over a circle; a palm tree (?); a compound hieroglyphic representing an almond-shaped sign with an arm (?) projecting from one side, and another arm terminating with a circle or disc, on the other; two crescents above a circle; a pillar or trunk of a tree (?), with a prickly branch projecting from it on one side, and a spear, or some acute sign attached to it by a label, on the other; a spear-head (?), with indistinct signs on each side; a double fish-hook, armed with shark's teeth (?), with a ring at the end; a man with large ear lobes holding some pointed instrument in his hand; a bird-headed man holding a fish to which a spear is attached by a label, in his right hand a knife (?); and two remarkable signs to the left, near the end of the line. They represent two sitting figures, one smaller than the other, with hideous faces, and peculiar head-dresses. The larger one holds in its hands two clubs or sceptres; the arms of the other are hanging down. They appear to be idols (but may be figures representing Chiefs); in either case they are altogether unlike anything in the Pacific. I have an indistinct recollection of having met them in connection with some people in the "East."



Reversing the tablet; the signs in the two bottom lines and

also in nearly the whole of the two top lines, are found to be of much the same character as on the face already described.

Commencing, as before, on the right of the bottom line (Pl. xxi), we see two figures with enlarged ear-lobes, with arms upraised, and hands spread out as if astonished at the sight of some singular creatures near to them on either side. Two figures, also with enlarged ears, but standing up, appear to be punting themselves in coricles, or diminutive canoes, formed like crescents. Smaller fishes than any represented elsewhere are placed on each side. A sitting figure, nearly obliterated, owing to its position near the end of the tablet, is represented with upraised arms, and a remarkable ornament round the head.

Passing over the intermediate lines, for reasons which will be given presently, in the seventh line from the bottom (or second from the top), the greater part of the signs seem to relate to an accident which appears to have happened to a native. An arm is seen attached to the tail of six fishes. Between two of them a man with large ear-lobes is running with a club in his hand. Further on another with a prognathous face is represented in a falling or kneeling posture, *with only the stump of one arm*. He holds up the other as if calling for assistance; near him are two Herronias, one of them with a staff or spear; the other with his hand raised to his head, and with the sign of a staff standing before him. Further on there is another Herronia holding a fish by the neck.

A man with large ears and with a club in his hand appears to be running towards one of the fish, with the arm attached to it. It seems probable that the native represented with only one arm has been rescued from sharks by the man with the club, and that the six fishes indicate the number of sharks by which he was attacked. On the left there is a creature like a pelican conventionally treated.

In the four middle lines and in a portion of the second line from the top, the signs are arranged in compartments or paragraphs, each of which commences (or ends) with the sitting figure of a negrito holding a staff, at the right side of which there are generally five, but sometimes six, short marks or notches. There are in all thirty-one of these figures, and consequently the same number of compartments, containing from one to six signs. It seems probable that they are the names of chiefs, and that the signs are enigmatical. The whole of these signs will be described at the end of the paper.

There has been no time to examine the larger tablet, except in a cursory way. The signs engraved on it are, as has been already said, considerably smaller than in the tablet which has been just described, and the execution more delicate and clear. This would seem to indicate that it is of later date. And the

repetition of signs seems suggestive of a subsequent adoption of Polynesian words. It may, by-and-bye, supply a key to the hieroglyphics which I have not attempted to decipher.

As regards the meaning of the iconographic signs and pictures, sufficient evidence has perhaps been adduced that they represent, as suggested in the early part of this communication, forms of life as well as weapons, and incidents (some apparently religious) which belong to islands many thousand miles to the west. In Easter Island, it is well ascertained that the only quadruped is a rat, and the only land bird a domestic fowl; and the natives have certainly neither dog-faces nor negrito-like heads.

When the traditions of the Island, assisted and kept up, as they would have been by these inscribed tablets, and other monuments, state that a chief arrived many ages ago from Oparo or Rapaiti, with many followers, and that they had been driven away from that island by force, it seems probable that the Heronias represented on the tablets represent those exiles. Assuming this to be so, the peculiarities noticeable in the ethnography of Easter Island, which were probably introduced by them, may assist us by-and-bye in gaining an approximate idea of the date of this most interesting but involuntary voyage.

At Oparo, we learn from a drawing by Captain Vine Hall, there is a temple or castle in five stages, surrounded by walls which enclose early stone houses. There are also platforms of squared stone on the side of one of the hills, which appear, like those in Easter Island, to be intended for statues. The natives of Oparo, according to their own traditions, in former times were in a state of constant warfare, though their island is not more than twenty miles round. If the occupants of the castle were the people with whom they fought this would be accounted for, as it may be assumed that they were strangers who had been carried to the island by currents or gales. If forced to take to their boats they would have drifted almost as a physical necessity to Easter Island. Two nationalities may, however, have arrived together at Oparo, and in course of time quarrelled. Those found on the Island, when re-discovered, appear to have been good sailors, and a very tall race like the people of Tonga.

The signs which it has been thought probable form the names of chiefs or kings, commence near the end of the second line from the top of the reverse face of the tablet. There are thirty-one paragraphs.

I. Sitting figure with staff. 1. Fish. 2. Three small circles. 3. Shell? 4. Hatchet ornamented. 5. Tree? Sugar-cane?

II. Sitting figure with staff. Three signs much worn owing to their being at the end of the tablet.

In the fourth line,—

III. Sitting figure with staff. 1. Turtle. 2. Tree, with

branch? 3. Staff or pillar. 4. Large turtle. 5. Hatchet (personified). 6. Staff or pillar. 7. Large turtle.

IV. Sitting figure with staff. 1. Staff or pillar. 2. Fish. 3. Staff or pillar. 4. Rapa.

V. Sitting figure with staff. 1. Various hatches, with chevron above. 2. Turtle. 3. Three small circles. 4. Turtle. 5. Sign like *e* (italic.) 6. Large-eared figure, clothed? holding an enigmatic sign, with three arches attached.

VI. Sitting figure with staff, preceded by five chevrons. 1. Albatross (or *doden*?) 2. Dog-faced man holding turtle. 3. Shield or gorget? 4. Pillars, with three arches or half circles attached. 5. Large-eared figure holding up his arms, with some signs attached to one of them.

VII. Sitting figure with staff; and three signs which are almost entirely obliterated near the end of the line.

In the sixth line from the top,—

VIII. Sitting figure with staff. 1. Shark. 2. Fish-hook?

IX. Sitting figure with staff. 1. Man with mask? holding some unknown instrument in his hand.

X. Sitting figure with staff. 1. Two Herronias embracing. 2. Three small circles.

XI. Sitting figure with staff. 1. Fish, with label attached, and two chevrons above. 2. Fish-hook? 3. Beetle or some other insect. 4. Turtle laying eggs. 5. Figure with mask or high cranium and with *no* signs to indicate large ears; he holds a staff with large ears at the top, like those in Easter Island, and raises the other arm.

XII. Sitting figure with staff. 1. Herronia. 2. Figure, with *one* large ear? holding a club in his hand, with one leg injured? 3. Herronia, with a club in his hand, and a spear? attached to the same arm that holds the club.

XIII. Sitting figure with staff. 1. Hieroglyphic like the body of some animal with two chevrons in place of a head. 2. Cock crowing? 3. Bird with tuft or crest on its head. 4. Man with *two* pelicans' heads (a Janus figure?).

Here the tablet is to be turned. In the third line from the bottom,—

XIV. Sitting figure with staff. 1. Imperfect figure, apparently of a man with his arms raised. 2. Canoe sign?

XV. Sitting figure with staff. 1. One fish attacking another. 2. Figure with large ears, clothed? and holding a staff.

XVI. Sitting figure with staff. 1. Two fishes, one above the other. 2. Pillar.

XVII. Sitting figure with staff. Albatross (or *doden*?).

XVIII. Sitting figure with staff. 1. Sitting or kneeling figure with large ears, and uplifted arms.

XIX. Sitting figure with staff. 1. Dog-faced figure or negrito, with stump of an arm. 2. Herronia, with some weapon or instrument in his hand. 3. Staff or pillar. 4. Plant? Club?

XX. Sitting figure with staff. Two dog-faced figures or negritos sitting back to back, each with only one arm; one of them holds his hand to his face, or beckons.

XXI. Sitting figure with staff. 1. Staff or pillar. 2. Pelican. 3. Beetle.

XXII. Sitting figure with staff. 1. Hatchet with ornamented handle. 2. Staff or pillar. 3. Fruit tree?

In the fifth line from the bottom,—

XXIII. Sitting figure with staff. 1. An insect. 2. Staff or pillar. 3. A cone? a shell? or fruit?

XXIV. Sitting figure with staff. 1. Double-headed pelican. 2. Four diamonds or small circles united.

XXV. Sitting figure with staff. 1. A compound hieroglyphical sign. 3. A shield or gorget? 4. Herronia with club.

XXVI. Sitting figure with staff. 1. Dog-faced man or negrito dancing with a club in his hand; he raises the other.

XXVII. Sitting figure with staff. 1. Staff or pillar. 2. A plant or club?

XXVIII. Sitting figure with staff. Dog-faced man or negrito, holding a club in one hand and raising the other.

XXIX. Sitting figure with staff. 1. Several small circles or dots. 2. Pillar or tree? with arm.

XXX. Sitting figure with staff. Pillar or tree? with arm and hand: a second sign like a sword or knife is attached to the arm.

XXXI. Sitting figure with staff. 1. Staff or pillar. 2. Infant with enlarged ears? 3. Figure with large ears.

DISCUSSION.

Señor GONZALEZ DE LA ROSA said, the MS. which I here exhibit in illustration of Mr. Harrison's paper, contains some relations of expeditions made to the Pacific Islands by order of the Viceroy of Peru, from 1770 to 1774, but only the last eight pages are relating to the Easter Island. The voyage was undertaken in 1770 by Captain Don Phelipe Gonzalez, S.N., with two war ships, S. Lorenzo, and Sa. Rosalia. The 15th November they took possession of the Island on behalf of H. C. M. Carlos III, and for that reason, the MS. said, they gave to the Island the name of *S. Carlos* instead of *David*, as it was formerly called. On that occasion, after the deed of possession had been signed by all the expeditioners, they invited the *Caciques* to do the same, as a act of donation to the King of Spain. Then the chiefs drew the characters contained in the MS., the correctness and authenticity of which is testified by S. Antonio Romero, the secretary of the expedition. The striking

likeness of the characters with those of the inscriptions described by Mr. Harrison is worth consideration. It seems evident that the signs of the inscriptions might be old, but on the other hand they might be of a recent date, since we see in the native writing nearly the same characters. That proves that the existing race of Easter Island have the use of hieroglyphic writing, and that by intercourse with the present population it would be possible to discover the secret of deciphering the old inscriptions. Great light on this and other ethnological questions could be obtained if an accurate survey of the Easter Island were made. The MS. also contains a curious map of the Island, with soundings, and the following description of the inhabitants: "The number of natives seems to be about 1,200; they are amiable and did not bear any weapons when they came to us; the men are tall, strong and well constituted, of great vivacity and agility; the women are few and generally short; all are of a dark colour, but not at all black, and their figure is well formed; the pronunciation is easy, because they used to repeat without difficulty all that we said: in spite of that we were unable to understand their language."

Mr. HARRISON in reply, said the interesting discovery by Señor de la Rosa of the signature by Easter Islanders one hundred years ago to a treaty with the Spanish Admiral Gonzalez, shows that some traces of the custom of using hieroglyphics existed at that date. The sign of a sitting figure, as I have pointed out, occurs in connection with signs which there is reason to believe represent names. The signature by the chief on the above-mentioned occasion may merely show that he drew the sign of an Herronia—the only sign in the deed like any of those in the tablets—to indicate he was a chief. It is well known that the islanders keep up, or did so until a not very distant period, the art of drawing, as is shown by the pictures of ships in full sail on the walls of some of the houses.

Professor T. McKenny Hughes read the following papers:

EXPLORATION of CAVE HA, near GIGGLESWICK, SETTLE, YORKSHIRE. By T. McKENNY HUGHES. [With Plate xxii].

IMMEDIATELY above the talus which slopes up to the limestone cliffs on the north side of the road between Austwick and Giggleswick, a fine half-dome shaped cave can be seen from the road as it rises the hill beyond Crow Nest. It is a locality well known in the district, not only for its beauty, but also as the haunt of the boggart of Cave Ha.

The origin of the name "Cave Ha" is not clear, as it appears sometimes to be applied to the cave and sometimes to the hill. In the dialect of the country it might be the Cave Haw or Hill, or it might mean Cave Hall, in allusion to the roofed chamber of the cave,* or, less likely, it might be derived from Cave Hole.

* Hall is always called Ha in that district.

Such a spot might naturally be expected to have been sought for shelter by primæval man as well as by the wandering gypsies and tinkers of later times. Indeed, I was informed that quite recently an eccentric individual lurked about the rocks of Cave Ha Wood undiscovered for months, living on milk which he obtained from the cows on the neighbouring farms at night, and on other produce which he could easily pick up.

I therefore thought it worth while to explore the cave, and by the kind permission of Mrs. Ingleby, of Crow Nest, I dug through the deposits which form the floor, following one wall of the cave to the end, leaving the rest undisturbed in case further evidence should be required with regard to any particular bed. I was assisted in my search by Mr. Tiddeman, Mr. Arthur Lyell, and Mr. Adam Sedgwick, and obtained some interesting results.

The cave or rock shelter, as now seen, is in form somewhat like half a bell. [See sections 1 and 2.] There is a funnel-shaped hollow (e) in the roof, which suggests that the water rushed down from a swallow hole above through this funnel into a chamber which was rounded by the eddying water and pebbles. Denudation then cut back the rock from the great fault which runs below the limestone cliff nearly along the road, and when finally the south side of the chamber was broken off the cave was laid bare much as it is.

The height of the cave from floor to roof is about thirty-five feet, and the funnel is seen to run up about twenty feet more. The floor extends about forty feet from front to back, and about fifty feet from side to side.

The deposits are in descending order:—

A. (1.) Surface mould, with pellets of owls, kestrels, etc., to one foot passing down into

(2.) Earth with much vegetable matter; old floors, with remains of plants, charred wood, pottery of modern and ancient make, antique knives, ox shoe, stone bead, flint flakes and bones of recent animals, all mixed up together by burrowing animals; large numbers of bones of mice in places; two to four feet.

B. (1.) Decomposed powdery travertine and limestone to two feet.

(2.) Fragments of limestone, sometimes cemented into a breccia. Hardly any traces of vegetable mould; comparatively few bones, except those of mice, which are crowded into all the interstices of some portions of the bed.

c. Yellow clayey sand and clay, perhaps in a great measure the insoluble residuum of the dissolved limestone; no bones or other remains were found in this bed.

D. Mountain Limestone.

CAVE HA.

Nº1, Section across near entrance

D

A

B

C

unexplored

D

Scale 20 Feet to 1 Inch.

D

Nº2, Section from front to back.

A

B

C

unexplored

D

The bones have been examined by Prof. Busk, in (A) he finds only the remains of recent species. He has determined the following:—Wild goose? small species of duck, small bird, ox, sheep, goat, deer, pig, badger, hare, rabbit, mice, fox, dog, fish (ear bone.)

With these, however, were associated an irregular jumble of ancient and modern works of art, among them more or less dressed flakes of chert and flint. Chert is a material abundant in the district, but flint is very scarce, being only rarely found in some gravels.

There is among the stone relics a curious thing like a flat bead or ring, such as might have been used as an ornament. The pottery is very fragmentary, and though some of it much resembles pottery known to be of neolithic age, still, as it has got mixed up by the operations of rabbits and badgers with other fragments undoubtedly quite modern, the evidence is not satisfactory. There are also some curved iron implements, probably knives of an old fashion; one ox shoe and fragments of bone which may have been turned to account for various purposes.

On the whole these remains do not point to any remote antiquity, and if the pieces of flint and chert may have been used for striking a light, either in the hand or on a gun or pistol, they also may be very recent.

In (B) there were comparatively few bones except those of mice, which in places crowded the interstices between the fragments of limestone.

Prof. Busk has detected, among the bones of larger animals, remains of ox, goat or sheep, hare, dog, and one molar of bear.

No flakes or other traces of man have turned up in this bed, although the above list would lead us to assign no great antiquity to it.

Cave Ha explains one point of considerable interest, that is, the manner of occurrence in some cave deposits of immense quantities of the bones of various species of mice. We find on the surface in Cave Ha, a layer made up of the undecomposed pellets of owls. Some, it is true, are broken up, and the hairs and bones of the mice are strewn over the cave, getting in between any fragment of stone which may have fallen on the floor, other pellets get covered up while still unbroken, and explain those curious little bunches of bones which we find in the beds below, and in which the grouping of the bones is exactly similar to that in the undecomposed pellets above.

Dr. Lund, as quoted by M. Steenstrup,* from a comparison of

* Videnskabelige Meddelelser fra den Naturh. Forening i Kjobenhavn, 1872.

the mode of fracture of the bones of small animals found in some Brazilian caves, with those in the pellets of the owls which now inhabit them, has inferred that they were chiefly brought there by owls, and upon that hypothesis founds an ingenious calculation as to the antiquity of the existing fauna of the country. M. Steenstrup pointed out that the action of the gastric juices produces marks on the bones of animals by which those that have been in the stomachs of birds of prey may be easily recognised, but seems to question the value of the evidence founded upon the mode of fracture only. I am unable to offer any further evidence on these points, as we ought to show not only that the state of the bones in the cave is similar to that of the bones in the pellets, but also that the character of the fracture and decomposition of the surface is different from that which would be produced by the ordinary weathering of the bones. However, the manner of occurrence and grouping of the bones, which in Cave Ha we can trace up to the undecomposed pellets, renders it certain that in that case they are almost all to be referred to owls, which I have frequently seen both there and far in the gloom of other limestone caves of the district.

In Cave Ha, which is light and open, we find traces of kestrels as well as owls. Birds of prey frequently return to the same rock to devour and rest after swallowing their prey. Many omnivorous rodents, such as rats and mice, and some insectivora, such as hedgehogs, carry off into their holes bones and other refuse which require time to pick.

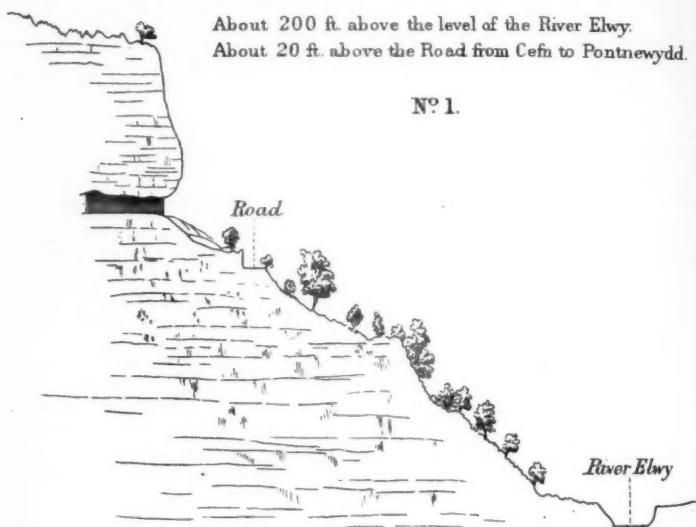
Such considerations offer a simple explanation of the manner of occurrence of numerous bones of small animals associated with some of larger kind in limestone fissures, especially those which occur along ridges. Collected by birds of prey, and perhaps some by man, they are dragged into their little dens by our small scavengers far beyond where they would be carried by man, or even by foxes or cats, while in heavy rains they are swept on into the deeper cracks which drain the rock. Sometimes the whole of such collections have been too hastily referred to the agency of man, especially if his long sojourn in the neighbourhood be well established on other evidence, and his remains found in adjoining caves.

I think I can also suggest an explanation of the superstition of the *Boggart of Cave Ha*. One day when I was at the bottom of the trench examining the earth as it was being thrown out by the workman, I heard a curious laughing voice close behind me. He also heard it, but it did not appear to him to come from exactly the same spot as that from which I thought it came. We went out and saw some boys laughing and playing far down the road. Owing to the peculiar

POSITION OF PONTNEWYDD CAVE, CEFN, ST ASAPH.

About 200 ft. above the level of the River Elwy.
About 20 ft. above the Road from Cefn to Pontnewydd.

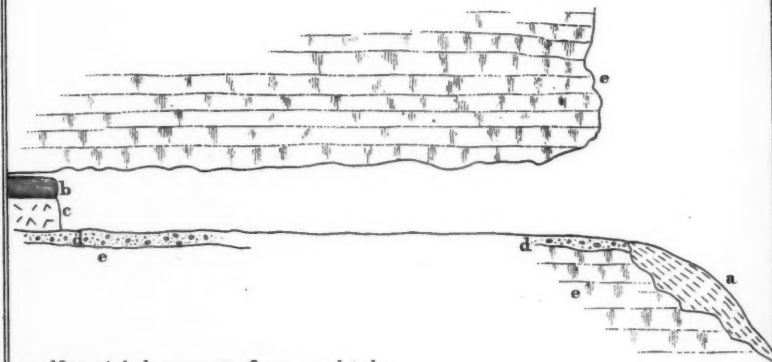
Nº 1.



PONTNEWYDD CAVE, CEFN, ST ASAPH.

Scale 20 Feet to 1 Inch.

Nº 2.



- a. Material thrown out of cave and talus.
- b. Yellow cave earth, about 3 ft. seen in section at the end, evidence that it was near roof all along, lines of black oxide of iron at base.
- c. Breccia of clay with angular fragments of limestone, few Silurian &c. washed in.
- d. Gravel almost all rolled. Silurian, felsite &c. such as might be derived from Boulder Clay.
- e. Mountain limestone.

form of the cave, their voices seemed to have been collected in an irregular manner into foci, somewhere near where we were standing. I frequently heard the same effects again. Such sounds, heard by early hunters or modern poachers hiding there at night, might easily suggest the ill-defined *Boggart*, which timid people would afterwards see in the gnarled stem of a broken tree or the fitful phosphorescence of some low forms of vegetable life.

The remains which I have found will be placed in the Museum of Giggleswick Grammar School, where so many cave treasures are already lodged. There are indications of caves about fifty yards east of Cave Ha, but the labour of opening them would be considerable at first, as very large blocks have fallen over the mouth.

On the OCCURRENCE of FELSTONE IMPLEMENTS of the LE MOUSTIER TYPE in PONTNEWYDD CAVE, near CEFN, ST. ASAPH. [With Plate xxiii]. By T. McK. HUGHES, M.A., Woodwardian Professor of Geology, Cambridge, and Rev. D. R. THOMAS, M.A., Vicar of Cefn. With a note on the bones by the President.

THIS cave was partly excavated by Mr. Williams Wynn some years ago. Referring to the section I, it will be seen that the cave occurs in the face of a limestone cliff, about 200 feet above the river Elwy. It is further up the river, and at a considerably higher elevation than the celebrated Cefn cave. Referring to Section II.—

a. Material thrown out of the cave.

b. Yellow cave loam, probably the earthy residuum of decomposed limestone with the addition of some clay washed in through cracks and holes. It is rarely laminated, because there could seldom have been in this particular case a sufficient depth of muddy water ponded back to admit of the sorting of particles of various size and weight during tranquil deposition. This deposit seems to belong to the time when the cave was being filled up, so as to be almost cut off from the outside frost and rain. It may be well examined in a clear vertical section left at the far end, where it is seen to be about three feet thick. At the base there are often lines of black oxide of iron.

c. Breccia, consisting chiefly of angular fragments of limestone, with some pieces of pebbles of Silurian and Cambrian rocks, such as might be derived from the drift outside. About three or four feet of this also is seen in the section at the end

of the cave. It probably belongs to the time when the roof was crumbling down by the action of the frost, and occasional floods carried in the débris from undermined cliffs of boulder clay, which once existed all over the district.

d. Gravel of rolled fragments, chiefly of Silurian and Cambrian rocks, sometimes cemented into a conglomerate. This is just what would be produced by washing the boulder clay of the neighbourhood, which is chiefly derived from the Snowdonian and intervening districts, some of the stones being large. About two feet of this gravel has been dug through near the end of the cave, and it has been trenched through to the same depth for about ten yards from the mouth. It belongs to the early history of the cave, when it was the underground course draining off the water which accumulated over large tracts of boulder clay, and at length plunged into swallow holes on reaching the limestone. When this boulder clay had been eaten back far enough to turn the water into other swallow holes, feeding other or probably lower caves, then the formation of the bed (c) commenced in the Pontnewydd cave.

The cave loam (b) and the breccia (c) have been almost entirely removed for about twenty-five yards. Patches of the breccia remain in corners, or where cemented by the calcareous drip, and here and there a stalactite opening at its lower end like a huge sea anemone discloses some of the cave mud, which must have been so near the roof that the stalactite touched it, and was beginning to spread out over it into a stalagmitic floor. When examining the débris thrown out of the cave, we found among the fragments of feltstone some which must have been reduced to their present form, since they were transported by water, or had lain in the drift, as they were not rounded, nor was the surface weathered as in the case of the majority of stones in the cave deposits and in the drift. And to one familiar with the Le Moustier types there was something very suspicious in one or two of the forms first found. Further investigation and a comparison of the forms found at Pontnewydd with the few Dordogne and St. Acheul specimens at hand, has furnished us with so much cumulative evidence in favour of the artificial origin of the felstone flakes and discoidal fragments that we have thought it worth while to bring the matter before this society.

First, we may notice, with regard to the material, it is a compact grey felstone sometimes porphyritic. It does not occur *in situ* in the drainage basin of the Elwy, but is common in the drift of the neighbourhood. Even in a highly-finished implement this rock does not show the care bestowed upon it in the same way that flint does.

The period to which they may probably be referred was one in which very rude implements were in use. It is equally good evidence of the agency of man, if we find even natural forms which might be made of use in a situation to which they could only have been brought by the hand of man, *e. g.*, in some of the Dordogne caves there are very rude forms of flint, so rude that if we found many of them on the surface of the country we should think it possible they were quite natural; but they are found in caves, in such condition, in such positions, and so associated, that they cannot have been introduced there by any known operation of nature.

It is a curious circumstance with regard to these early implements that we find a great uniformity of type in widely separated districts among the implements which the rest of the evidence would refer to the same period. So when we come to compare the Pontnewydd forms with the palæolithic forms from France. Even allowing for the difference of material to which we have already called attention, it would be difficult in some of the instances before us to make a drawing by which, after looking at the Pontnewydd and at the French specimens, we could say which was meant. The similarity of position of the bulb of percussion in one case, and of the small portion of the original weathered surface remaining in another, are accidental resemblances more curious than important.

The implements we have as yet found may be grouped under four principal heads, to illustrate which we have selected those we could find most like them in a small collection from Dordogne and St. Acheul.

1st. The Discoidal. Of this we have only one specimen; but that is exactly like the specimen exhibited from St. Acheul and Le Moustier.

2nd. The pointed or straight-fronted scraper—flat on one side, dressed more or less on the other. These are as usual made out of large flakes, and the great bulb of percussion is seen in both the specimens from Pontnewydd.

3rd. The Arrowhead. We should not show these alone, but having many similar forms as rude from the Dordogne district, and having found them with the other better forms described above, we have thought it worth while to exhibit them also. The rude tang got more and more finished in later times. Individually they look as if they might have been formed by nature, yet it would be curious to find several of them together were they not selected by man as useful, and carried there.

4th. The three-pointed form, of which there is one fair and one rough specimen. These also somewhat resemble common Le Moustier flints.

From the position in which our specimens were found it would appear that they occurred in the deposit (c). One was picked up in the cave under circumstances which rendered it almost certain it was derived from it.

Professor Busk has kindly examined the bones found with the felstone and flint implements, and written the following note upon them :—

"I have looked over the collection of bones and teeth from Pontnewydd cave, and find they belong to *Hyaena spelæa*, *Ursus spelæus*, *U. ferox*, *Equus caballus*, *Rhinoceros hemitechus*, *Cervus elaphus*, *C. capriolus*, *Canis lupus*, *C. vulpes*, *Meles tacus*, *Homo sapiens*, besides indeterminable or not easily determinable splinters many of which appear to be gnawed by hyæna or wolf. Some are rather less infiltrated with manganese than the others, but all appear to be pretty nearly of the same antiquity, not excepting the human molar tooth, which looks quite as ancient as the rest. It is of very large size, and in this respect exceeds any with which I have compared it, except one or two from Australia or Tasmania."

On the whole, therefore, it would appear that we have fragments of the toughest stone of a country where suitable flint could not be procured, shaped like some of the undoubted flint implements of the caves of Dordogne, occurring in a cave associated with the same group of animals as that found with the French implements; that these instruments are formed of fragments of felstone such as is abundant in the drift of the neighbourhood and in the cave deposits. A portion of the original surface left on some of the implements shows that they were formed out of such weathered fragments. Unless, therefore, the fragments from which the implements were formed were brought by man from another and distant river basin, they must have been obtained from the drift, and this is rendered almost certain by their being found associated with remanié drift mixed with tumble from the roof of the cave. Therefore they must belong to a period later than the glacial dispersion of the Snowdonian drift. Flint flakes and scrapers have been found in the cave; but though it is most probable that some of them were derived from the same bed as the bones and felstone implements, the evidence for their position was not quite satisfactory, and therefore we say no more about them.

Pieces of undressed flint certainly occur in the older beds (c), which would make it at any rate of not earlier date than the St. Asaph drift, which contains only recent nonarctic shells.

DISCUSSION.

Mr. JOSEPH NELSON said, being only a visitor I must beg that you

will kindly permit me the privilege of saying a few words on the subject of the Ha Cave. I was born almost in sight of it, passed it night and morning for many years on my way to and from Giggleswick School, and have played in and about it when a boy hundreds of times. It was then known as "Jack Daw Hole," I have, however, heard it called the laughing cave. There is a beautiful echo, when sounded about half way towards the turnpike road, and as boys we used to amuse ourselves by hearing our laugh repeated, Ha, Ha, Ha ! At first I thought it not improbable that the cave might have derived its name from this source, but when I remember that it is situated near Buck Ha Brow, the name of that part of the road extending from the "Ebbing Flowing Well" to near Crows Nest, the name is most probably derived from the name of the brow. The place and all its surroundings has always had a very bad reputation, it was infested with gypsies. A turn in the road close by is called "Dangerous Corner," many accidents have occurred there, coaches and waggons upset and passengers and horses killed, a dear friend of my father was killed immediately opposite the cave, a horrible murder was also committed a few yards west of it, a notorious family of the name of Lambert, who resided at "Brunton House," robbed a cattle-dealer, and then threw him from the top of the Scar, a height of between two hundred and three hundred feet; his body is said to have struck against the face of the rock and left an indelible impression of his blood; a fact implicitly believed by me and all my schoolfellows, inasmuch as the large brown mark is plainly visible on the face of the rock, and we have all seen it. At the time I am speaking of (nearly fifty years ago) fairies, witches, and wise men were extensively believed in in this part of the country, and it was in connection with this cave that I was first initiated into the secrets of the fairies by an old servant of my father. Referring to the sketch of the cave exhibited by Professor Hughes, it will be seen that there is a large opening at the crown of the arch, in early days it was believed that this led to an inner cave of immense size, but from the peculiar position of the opening was not accessible by that route, and therefore some enthusiastic believer had made an attempt to effect an opening by driving a level from about the middle of a natural staircase which runs up the face of the rock about ten yards east of the cave. The old servant proposed that he and I should continue this level until it opened into the cave, and there take up our residence with the fairies, and sally forth with them on their nocturnal journeys. In fact the matter was looked upon in so serious a light by me that I provided myself with a hammer, a pick, and a cold chisel, and I worked many a lonely hour at the tunnel; the material, however, was not so soft as myself, and I at last abandoned it, but I did so very reluctantly. It would afford me great pleasure to accompany Professor Hughes on his next visit to Giggleswick, for I can show him a cave known only now (I think) to myself. When I was a boy it was said to be remarkably rich in fossil remains, to have been explored only by one man, and that he had gone so far that he could hear the sound of the fire-irons on the hearth at Stack House. Thanking

you for the kind manner in which you have listened to my remarks, I much regret that I was not educated in geology and anthropology, instead of fairies, and wizards, and witches. I had, however, a rude induction into the science of anthropology the first day I went to Giggleswick School, by one of the boys seizing my hat and running with it to the bone-house of the neighbouring churchyard; in a short time my hat appeared on the wall, when on taking it up I found it contained a human skull, this so shocked me that I did not care at that time to pursue the investigation of anthropology.

Prof. HUGHES said that he had selected the forms from St. Acheul for comparison, not as typical specimens from the Somme Valley, but just to show that while he could find counterparts of all the Pontnewydd forms in the cave of Le Moustier, some of them were to be found also in the gravel of St. Acheul, thus grouping the Pontnewydd specimens with the oldest of the Dordogne types.

Mr. FRANKS, Dr. KING, and Mr. CHARLESWORTH also joined in the discussion.

The President read the following paper:

NOTICE of a HUMAN FIBULA of UNUSUAL FORM, discovered in the VICTORIA CAVE, near SETTLE, in YORKSHIRE. By G. BUSK, F.R.S., President of the Anthropological Institute.

THE fragment of bone I am about to describe was discovered in May, 1872, at the Victoria cave, near Settle, in Yorkshire. It lay at a considerable depth in the cave earth, and beneath a thin layer of "boulder clay," which was again covered by a thick deposit of more recent materials, and accompanied with the bones of the two larger species of Cave Bears, Hyena, *Rhinoceros tichorinus*, Bison and *Cervus elaphus*. From its position, accompaniments, and other considerations, the deposit in which the specimen was found has been regarded, and it seems with great probability, as of preglacial age—that is to say, of an age anterior to the period at which the surrounding country, and the greater part of the island in fact, was covered, as is Greenland at the present day, with a thick sheet of ice. Into this part of the question, however, it is not my intention, nor in fact would it be in my power, to enter on the present occasion, although I hope it will afford a subject for interesting discussion at a future meeting of the institute at which Professor Boyd Dawkins and Mr. Tiddeman, and I should hope Professor Hughes and other experienced antrologists, may take part. One thing may, nevertheless, be remarked, that there is nothing in the condition of



Fig. 1.



Fig. 2.



Fig. 3.

the bone opposed to its belonging to the most remote antiquity, nor to its owner having been coeval with the extinct mammalia mentioned above, with whose remains the specimen, as to condition, differs in no appreciable respect. Its interest, therefore, as in all probability representing one of the earliest extant specimens of humanity, will be at once obvious. But in another regard also it appears desirable that some notice of it should be placed on record. The very unusual form and thickness of the bone have caused such great difficulty in its recognition as human that it is well worth while to draw attention to its peculiarities.

The whole collection of animal remains, soon after their discovery, was sent to me for identification, and at that time I was greatly puzzled with the present specimen, which I was unable to refer certainly to any of the other species I have enumerated, nor without extreme doubt to any other. Finally, however, I was induced to think that it might be elephantine. The supposition of its being so was suggested to me by Mr. James Flower, the well known and experienced articulator to the Royal College of Surgeons, who, upon comparison of the fragment with the fibula of the elephant, perceived, as he thought, strong grounds for supposing that the Victoria cave bone might be referred to a small form of elephant. Considerable doubt, however, remained on our minds, and when I saw the Mentone skeleton at Paris, and noticed the thick and clumsy fibula belonging to it, I was at once struck with the apparent resemblance between it and the cave bone.

I had no direct means of comparison between the two, and the matter might still perhaps have been in abeyance had not Mr. James Flower, at my further instance, been fortunate enough to discover amongst the numerous human bones in the museum a recent fibula, which at once removed all doubt.

The extreme diversity in form and thickness of the human fibula is well known, but the present case affords an instance of greater divergence from the more usual form and proportions than any I have before chanced to meet with, for which reason I have given a figure of the part corresponding to the cave fragment for the sake of comparison. (Pl. xxiv, fig. 3.)

The fragment is about six inches long, and consists of the shaft of the bone from a little above the middle to the point at which the anterior angle divides into the two ridges going to either side of the *malleolus*, or to about three inches above the distal end of the bone. The bone, therefore, when entire, was perhaps about fifteen inches long, and its circumference about the middle is 2.2; that of the fibula with which I am comparing it, and which is the thickest recent one I have been

able to meet with, is 2."0. The usual circumference of the full-sized human fibula, leaving out cases where the ridges, or some of them, are unusually prominent, may be taken at from 1."4 to 1."8. It is obvious, therefore, that the cave specimen is unusually thick. In other respects its chief peculiarity is the comparative obtuseness of the anterior angle and the very slight hollowing of the internal and posterior surfaces. The posterior angle, on the other hand, is unusually acute and prominent. There is, I may observe, no indication whatever that the bone has suffered from any morbid affection, rachitic or other, as it appears in all respects perfectly healthy and natural.

In general condition the substance is dense and heavy, although the surface is marked with numerous fine longitudinal cracks, which may be taken to indicate exposure to subaërial influences previous to its inhumation. The surface is almost entirely covered with a very thin layer of crystalline stalagmite, which may also be observed on the fractured surfaces. It will be noticed that a small portion has been broken off at each end.

But the surfaces of these fractures, when examined, are also found to be encrusted with carbonate of lime, so that it is probable that the fragment was broken as we see it after its lodgment in the cave earth, and, may be, by the falling of a piece of rock upon it. It is otherwise difficult to understand how such small fragments should have been found in close contiguity, as I believe they were. It may be stated that there are no recognisable marks of gnawing on any part of the bone.

I would remark that, to judge from the form of the bone, it does not appear probable that the corresponding tibia was platynemic. But this is a point which it would be very interesting to ascertain, and it is to be hoped that in the further exploration of the Victoria cave not only the tibia, but the skull and other parts of the skeleton of preglacial man will be met with. None of his works have, I believe, been as yet discovered in the same deposit, and should they be met with they will doubtless be of the rudest kind.

In conclusion, I have to thank the Committee for the exploration of the Victoria cave, for their kindness in giving me this opportunity of bringing before your notice such a very interesting specimen, and Mr. G. Style, of Giggleswick, by whom it was forwarded to me.

DISCUSSION.

Prof. HUGHES said that having already, at the British Association meeting at Brighton and elsewhere, given his reasons for believing that the evidence for the preglacial age of the deposits hitherto discovered

in Victoria Cave was inconclusive, he would not reopen the question further than to state that he had not, after many subsequent examinations, seen any reason to alter his opinion on that point.

Mr. WALTER MORRISON offered a few remarks and the meeting separated.

DECEMBER 30TH, 1873.

Professor BUSK, F.R.S., *President, in the Chair.*

THE minutes of the previous meeting were read and confirmed.

ISRAEL ABRAHAMS, Esq., 56, Russell Square, W.C., was elected a member.

The following presents were announced, and the thanks of the meeting were voted to the respective donors.

FOR THE LIBRARY.

- From M. I. GOZZADINI.—Congrès International d'Anthropologie et d'Archéologie Préhistoriques, Bologne, 1871. 8vo.
- From the EDITOR.—La Revue Scientifique, Nos. 24, 25, and 26, 1873. 4to.
- From Capt. S. P. OLIVER, R.A.—Προϊστορικὴ Αρχαιολογία. 8vo.
- From the EDITOR.—The Food Journal, for December 1873. 8vo.
- From the PUBLISHER.—Human Nature, for December 1873. 8vo.
- From the ASSOCIATION.—Opening Address of the President of the Geologists' Association, November 7th, 1873. 8vo.
- From the AUTHOR.—Darwinism and Design; or, Creation by Evolution. By George St. Clair, F.G.S. 8vo.
- From the AUTHOR.—Roman Antiquities: Mansion House. By John E. Price, F.S.A. 4to.
- From the INSTITUTE.—The Canadian Journal. Vol. XIV, No. 1, 1873. 8vo.
- From the SOCIETY.—Proceedings of the Royal Society, No. 147. 8vo.
- From the SOCIETY.—Transactions of the Royal Society of Literature. Vol. X, Part 3. 8vo.
- From the SOCIETY.—Proceedings of the Liverpool Literary and Philosophical Society, No. 27, 1872-3. 8vo.

The Director read the following papers:

INTRODUCTION to the TRANSLATION of the HAN ANNALS. By H. H. HOWORTH.

DR. PRITCHARD, the founder of ethnological science in England, regretted nearly thirty years ago that the great Chinese annals of the Han dynasty were inaccessible to European students. The Jesuits of the last century, De Guignes, Gaubil, Mailla de Moyrac, and others, supplied us with a vast quantity of valuable material in the translations which they made; but these were confined almost entirely to epitomies and to the works of the encyclopædists, such as Matouanlin, etc. As the principal of these epitomies fills twelve closely-packed quarto volumes in Mailla's work, it may be argued that we might be content; but absolute contentment is a virtue shared only by the dead and those who sleep, and is impossible to those who hunger for more knowledge, and know where it is to be found, but have not access to the mine. And this is especially true of ethnologists. We, whose ambition it is not merely to describe the manners and customs of the savage tribes of the earth, but who also claim to be pioneering the road by which the origin of mankind and of the arts and idiosyncracies which distinguish him may be reached, are never content. The road is very often dreary and repulsive, and very often treacherous, and it is natural that we should be anxious for more sound material upon which to build it. Our Western sources of information are at present nearly exhausted. What may be buried in Mesopotamia and elsewhere we can only dream about; but in the far east, in China, there is a vast mass of historical literature which is buried only inasmuch as it is untranslated. The imperial annals of the various dynasties, which are as yet almost untouched, and which are distinguished perhaps as no other annals elsewhere are by the extreme accuracy of their details. There we have a minute account of the intercourse of China with its neighbours reaching back in contemporary annals to at least the second century before Christ, and those who have laboured in the dreadful quagmires and quicksands that characterise the history of Central and North Eastern Asia must sigh for the time when these accounts shall be within their reach.

The series of Chinese annals begins properly with those of the Han dynasty, which reigned from about 202 B.C. to about 220 A.D. This was the golden period of Chinese history, when the empire reached its furthest limits, when Buddhism was introduced, and when a glorious literature flourished.

During the dynasty of the Cheou the old imperial unity had

been invaded by the creation of various feudatories, who became almost independent. It was one of the great works of the founders of the Thsin dynasty, that dynasty which gave its name to China, which built the great wall, introduced the use of paper and the present system of writing, and which reigned immediately before the Han, to destroy these feudatories and to restore the unity of the empire. To do away with the evidence upon which the claims of these feudatories were based it was ordered that all the ancient books and histories should be burnt. "These orders," says Klaproth, "were rigorously executed. The literates of China have never forgiven the outrage, which is the reason why the old traditions of the earlier years of the Chinese monarchy have come down to us so feebly. After the accession of the Han dynasty, a search was instituted for such fragments and remains of the old books as could be found. It was with these materials, and with the aid of an old man who knew the Chu-king by heart, that this sacred work was again recovered, and that the earlier history was once more recorded." (Klaproth, *Tableaux Historiques de l'Asie*, 36 & 56.) This accounts for there being no annals earlier than those of the Han.

The immense value of the Han annals has been enlarged upon by many writers. They contain a wonderfully detailed account of the greater part of Central and Eastern Asia, and, as I have said, Dr. Pritchard long ago lamented their inaccessibility. This has not since been remedied. It is true they have been translated by the Russian mission at Peking; but the translation being in Russian, is as inaccessible almost as the original. One great difficulty, no doubt, has been the size of the work, which I believe fills one hundred Chinese volumes.

At the Congress of Orientalists at Paris, Mr. Douglas, the very courteous and skilled professor of Chinese at King's College, brought the question of this translation before the savants there. The proposal was very well received, and it was determined to distribute the annals for translation to various competent scholars and to issue the work by subscription. As yet, I believe, this is all that has been done. Meanwhile, I had written out to my friend, Mr. Wylie, of Shanghai, known everywhere where Chinese studies are known, and especially by his able papers in the journals of the Royal Asiatic Society, to ask him if he would abstract the ethnological part of the annals, in order that it might, if the Society should deem it valuable, be printed in our Journal. Some three or four months after I received this, the first instalment of the work which you have been good enough to accept. Such is a brief history of the following translation.

The portion of the work which has reached me as yet refers chiefly to the Hiong-Nu, about whom I wish to say a few

words. De Guignes, than whom no one has done more for the elucidation of the ethnology of Asia in ancient times, propounded the doctrine that the European Huns were descended from the Hiong-Nu of the Chinese writers, and he consequently, in his history of the Huns, worked out in some detail the account of the Hiong-Nu, so far as it could be collected from the narratives of Matuanlin and the other epitomisers of the Chinese annals. Minute ethnology was then in its infancy. The distinctions between Mongols, Turks, Ugrians, etc., etc., was hardly recognised because hardly known. Since the days of De Guignes the subject has received immense illustration from various quarters, and now no European scholar of any repute—save perhaps Dr. Latham—connects the Huns with the Hiong-Nu. The Huns, as I have elsewhere argued, were a race of Ugrians led by a caste of another race now represented by some of the Lesghian tribes of the Caucasus. The Hiong-Nu were not Ugrians. It was Klaproth, whose grasp of the whole subject of the ethnography of Northern Asia was most masterly, and who, notwithstanding some failures, I hold to have been *facile princeps* among Asiatic ethnologists, first proved that the Hiong-Nu were Turks, and his conclusions were endorsed by the very competent authority of Abel Remusat, and since by other scholars.

As Klaproth's analysis of the remnants of the language of the Hiong-Nu which have reached us has not appeared in any English publication known to me, and as it furnishes the best possible evidence of the Hiong-Nu having been Turks I shall here insert it. Klaproth's essay on the identity of the Thiu khiu and the Hiong-Nu with the Turks was published in the seventh volume of the "*Journal Asiatique*," 257, *et seq.* From it and from Abel Remusat's "*Recherches sur les Langues Tartares*," 11, *et seq.*, I shall chiefly extract my materials.

Many centuries before our era, and for a long time after, says the former author, the part of Asia bordering upon China on the north and north-west was inhabited by a people called Hiong-Nu by the Chinese. This name means vile slaves. M. Abel Remusat conjectures, with a good deal of probability, that this is only a transcription into characters of a humiliating sense of the indigenous name of the nation which is unknown to us.

It would not be profitable to epitomise a history which is told in full in the following paragraphs, and I shall content myself with collecting the evidence which fixes the relations and affinities of the Hiong-Nu. After being the terror of the Chinese borderland for many centuries, the Hiong-Nu were finally dispersed in the year 460, and it was then that a frag-

ment of them settled in the Kinchan or Altai mountains, and took the name of Thiu khiu. The meaning of the name is helmet, and they were so called, according to the Chinese, because the mountain where they settled was helmet-shaped. *Terk* means an iron helmet according to Klaproth (see the name discussed, *op. cit.* 262.) The Chinese accounts are unanimous in making the Thiu khiu a fragment of the Hiong-Nu and in identifying the two races. This being so, it is profitable to analyse the fragments of the language of the Hiong-Nu and Thiu khiu that have reached us. This analysis has been performed, as I have said, by Klaproth, and I will now extract it.

A house in Thiu khiu was *oui*, in Eastern Turkish *oui*, in Osmanli *eo*, in Mongol *ghér*.

A wolf in Thiu khiu was *furi* or *buri*, in Eastern Turkish *buri* or *bure*, in Mongol *tchino* or *tchinna*.

Meat in Thiu khiu was *achan*, which seems to be the same word as Turkish *ach*, nourishment; and *achmak*, to eat. In Mongol meat is *mikha*.

Black in Thiu khiu was *khara*, in Turkish *kara*, also in Mongol.

A horse in Thiu khiu was called *kholan*. This is the Turkish word *k'ulân*, by which the wild horses are known. In Mongol a horse is *mori*.

A camp or village of the nomades in Thiu khiu was *kui*. In Turkish *kui* means a village. The Mongols call it *tosko* or *gat-chaga*. They have also adopted the word *kui*.

The hair in Thiu khiu was *sogo* or *soko*. This is the Turkish word *sâch* or *sâdj*; in Mongol *ussu*.

An inspector in Thiu khiu was *karatchue*. This word is still in use in Eastern Turkish, where an intendant is *karawtchi* or *karawtse*, and in Uighur an official is styled *kharatcher*.

Big, full, or heavy in Thiu khiu was *sain dolo*; in Jakut, which is a Turkish dialect, son is *big*; in Osmanli, *dolu* is full; big in Mongol is *budun* or *djudjan*, heavy is *kundun*, and full *tugureng*.

The earth in Thiu-khiu was *bo*, this word has been lost among the written Turkish dialects, but among the Jakuts, on the borders of the frozen ocean, *bor* means the earth; the Mongols call it *gadzar*.

A judge among the Thiu-khiu was called *tére* in Eastern Turkish; *tére* or *turé* in Mongol *Sigum*.

The heaven, or God, in Hiong-Nu and Thiu-khiu was styled *tenghiri*, this word still survives in all the Turkish dialects as *tengir*. The Mongols have adopted it as the name of the inferior deities, the real name for heaven among them is *oktorgoi*.

Old in Thiu-khiu was *kari*, this is the Eastern Turkish *kâri*

whose root is found in the Osmanli word k'art, an old man. In Mongol it is kuksin.

A valiant man in Thu-khiu was chibor, this is the Eastern Turkish word chibor, adapted by the Persians it designates the great trumpet which gives the signal for attack; another name for brave men was yenghefu or yenghet, which was no doubt derived from the same root as the Turkish yenghin, a victor, and yengmek, to be victorious. The commanders of troops among the Thiu-khiu were called kulutch, this is clearly the Turkish word kilidj which means a sword, and which is also an honorary title, as in the various princely names, Kilidj arslan, emir-azz-eddin kilidj, dzu'filkar kilidj, etc. Khadjo was a princely title among the Thiu-khiu, which is surely the same word as khadjah, master, lord, in eastern Turkish, and has been adopted in Persian.

The wives of the Khakan of the Thiu-khiu bore the title of kakhatun or khatun, this is the Turkish word khatun, which means great lady, princess. It is one of the large class of words the Mongols have borrowed from the Turks. In 552 Thu-men khan, of the Thiu-khiu, died and left his lands to his son Kolo, who took the title of Iski Khan. He had a son whom he excluded from the throne and gave it to his own brother Chikin, known under the name of Mukan Khan, he also styled himself Yen-i; one cannot mistake in Iski Khan the Turkish name Iski Khan, *i.e.*, the ancient khan, and in Yen-i the word yenhi, which means the new in the same language.

In "Klaproth's Critique on the works of M. P. H. Bitchurinski on the History of the Mongols," I find it is stated that the first Chen-yu or king of the Hiong-Nu was called Theu-man, this is probably connected with tuman, which, both in Mongol and Turk, means ten thousand. Again, about the end of the first century of our era the Chen-yus of the Hiong-Nu began to attach the title jo-thi, meaning, in their language, dutiful to one's parents, just like hias in Chinese, this Klaproth says is indubitably the Turkish word yakhchi, pronounced djakchi by the greater parts of the nomade Turks of Central Asia, and which means good, excellent, virtuous; the first particle is pronounced jo in the Mandarin dialect, but yok or jok in the popular language. The second character has also the sound chi, so that jo in the pronunciation of the characters which Hyacinthe gives ought to be rather yokchi or jokchi, which is the same as the Turkish word yakhchi. [See Klaproth, *op. cit.*, 11 and 12.]

These are sufficient proofs that the Hiong-Nu were the ancestors of the Turks, the forefathers of that race of nomades who have done more to revolutionise the life of Asia since the Christian era than all other races who became the masters of

India and Persia, of Asia Minor and Syria, who formed the main portion of the vast armies of Jinghiz Khan and his successors and of Timur. It is surely an important and valuable accession to our ethnological materials to have the earlier history of this race set out. I shall not attempt to epitomise it. This has been done enough already, it is a more agreeable duty to be able to present the original account in its pristine form and to a careful study of this I would commend all those who wish to pierce back somewhat further into the origins of mankind by the only profitable road, namely, from the known to the unknown.

HISTORY of the HEUNG-NOO in their RELATIONS with CHINA.*

Translated from the Tseen-Han-shoo. Book 94, etc. By A. WYLIE, Esq.

THE first ancestor of the Heung-noo, named Chun-wei, was a descendant of the Great Yu¹ the founder of the Hea dynasty.

Previous to the time of Yaou² and Shun³ we hear of a race called the mountain Jung.⁴ These were the Heen-yun⁵ or Heun-yuh,⁶ who inhabited the northern regions, and removed from place to place, according to the pasturage for their flocks and herds. The bulk of their stock consisted of horses, oxen and sheep; but in smaller numbers they bred likewise camels, asses, mules, horse-ass hybrids, wild horses and hybrids of the same. Removing their herds to find water and pasturage, they had no fixed cities, but dwelt on their rural patrimonies, each family having its allotted portion of land. They had no written character, but performed oral contracts. The children rode on sheep, and shot birds and squirrels with the bow and arrow. When a little bigger, they shot foxes and hares, the flesh of which they ate. On reaching manhood, when able to bend a bow, they were fully equipped and mounted on horseback. In time of peace they hunted for their living; but when harassed by war, they cultivated martial exercises, to fit them for invasion or attack, which was agreeable to their disposition. The taller troops were armed with bows and arrows; the shorter with

* The greater part of this account, by Pan-Koo, the author of the "Han-shoo," or "History of the Western Han," is an almost verbatim quotation from the earlier history "She-ke," by Sze-ma Tseen.

¹ Yu is thought to have lived about the 23rd century, B.C.

² According to tradition in the 24th century, B.C.

³ Reported to have flourished in the 23rd century, B.C.

⁴ So called during the Chow dynasty, B.C. 1134—256.

⁵ So called in the time of Yaou.

⁶ These occupied the site of the present cities of Peking, Ke-chow, and Meih-yun.

swords and spears. When successful in the contest, they pressed forward; but on meeting with a reverse, they retreated, and thought it no shame to run away. On gaining a victory they showed no regard to propriety or equity. From the king downwards all ate the flesh of domestic animals, and clothed themselves with the skins, wearing a fur covering over all. The able-bodied ate the fat and choice portions, while the aged ate and drank what was left. The strong and robust were held in esteem, while the old and feeble were treated with contempt. When a father died, they married their widowed mother; and when a brother died, it was customary to marry his widow. Their names were not transmitted to their descendants.

At the time of the decadence of the Hea dynasty, when Kung Lew⁷ lost the superintendence of agriculture, he created an influence among the Western Jung. He fixed his headquarters at Pin⁸ B.C. 1796.

More than three hundred years after this, the Jung Teih tribes made an attack on the Great King, Tan Foo, the ninth generation descendant of Kung Lew; when Tan Foo was defeated and fled to the Ke⁹ mountain (B.C. 1326). The inhabitants of Pin all followed Tan Foo and established a city, which became the nucleus of the Chow dynasty.

In B.C. 1138 Chang the Western chief of the Chow, better known as Wan Wang, the grandson of Tan Foo, defeated the Keuen-e tribe.

Woo Wang, the son of Wan Wang, defeated Chow, the last monarch of the Shang in B.C. 1121, and encamped at Lo.¹⁰ He afterwards made his residence at Fung-haou on the site of the present prefecture of Se-gan in Shen-se; whence he expelled the Jung and the E, to the North of the King and Lo rivers. At the appointed times they returned with tribute, their territory being called the Wild domain.

When the Chow dynasty was beginning to decline, in B.C. 966. Muh Wang gained a victory over the Keuen Jung, and received from them four white wolves and four white deer which he took home with him. After that they came no more from the Wild domain.

In B.C. 951 a new criminal code was issued by the chief justice

⁷ A descendant of How-tseih, the ancestor of the Chow dynasty. Kung Lew held office under Kee Kwei, the last monarch of the Hea (B.C. 1818—1765).

⁸ The present Pin Chow in Shense. N. lat. 35 deg., 4 min.; E. long. 108 deg., 6 min.

⁹ A hill about thirty miles north-east from the present city of Ke-shan (N. lat. 34 deg., 20 min. E. long. 107 deg., 40 min.).

¹⁰ The present Lo-yang, N. lat. 34 deg., 43 min., 15 sec. E. long. 112 deg., 27 min., 40 sec., lies to the east of the site of the ancient city of Lo.

Len, which no doubt modified the intercourse of the Chinese with the wild tribes.

During the reign of E. Wang the grandson of Muh Wang, there was a decline in the royal house. In B.C. 928 the Jung made an irruption; which was followed by one of the Teih tribes in 922; thus violently harassing the central government, and causing much distress. Among the popular ballads at the time, we find the following stanza:—

" Without house and without home;
Reduced to misery by the Heen-yun.
Notwithstanding our daily precautions,
The Heen-yun are a great scourge to us."¹¹

In B.C. 826, while Seuen Wang the great grandson of E. Wang, was on the throne, the general Yin Keih-foo was put in command of an army, with a commission to subjugate these refractory tribes. The success of the expedition is commemorated in the following popular lines:—

" We expelled the Heen-yun,
As far as Tae-yuen;¹²
How gaily sped our chariots,
To build a wall at Suh-fang."¹³

The fame of the empire was then spread far and wide, and barbarous tribes from all quarters came to tender their subjection.

In B.C. 778, Yew Wang the son of Seuen Wang became enamoured with his concubine Paou-sze; and his infatuation eventually led to a quarrel with the Marquis of Shin, in B.C. 770. The latter incensed at the king, united with the Keuen-Jung, attacked and killed him at the Le mountain. They then seized the Chow territory and carried off the produce; while they dwelt between the King and Wei rivers, and distressed the kingdom by their ravages. But Chow was rescued from their hands by Seang the Duke of Tsin.

On the accession of Ping Wang, the son of Yew Wang, in the following year, he removed the capital eastward to Lo, in order to avoid the western tribes.

In 760, Seang the duke of Tsin, repulsed the Jung and drove them as far as Ké, upon which he was made one of the feudal princes of the Empire.

Some sixty-five years after this, the mountain Jung passed over Yen, and made a raid on the state of Tse; when a battle ensued on the border, between them and He the duke of Tse.

¹¹ "She-king," part ii, book 1, ode 7.

¹² The present capital of Shan-se province, N. lat. 37 deg., 53 min., 30 sec. E. long. 112 deg., 30 min., 30 sec. "She-king," part ii, book 3, ode 3.

¹³ The region now occupied by Ning-hea Foo, N. lat. 38 deg., 32 min., 40 sec., and Hwan-Heen, N. lat. 36 deg., 39 min. E. long. 107 deg., 7 min. "She-king," part ii, book 1, ode 8.

Forty-four years later, Yen was seriously attacked by the mountain Jung; but seeking assistance from Tse, Duke Hwan of that state attacked the invaders on the north, and completely routed them.

More than twenty years after this, the Jung Teih made an attack on Seang Wang, the Prince of Chow, in this city of Lo; when the latter fled to the city of Fan¹⁴ in the state of Ching.

On a former occasion, when Seang Wang wishing to attack Ch'ing, he took a Teih lady for a consort; and having formed an alliance with that tribe, they made a joint attack on Ch'ing. That enterprise over, the Teih princess was degraded, became incensed against the sovereign, and determined to supplant him. Hwuy the stepmother of Seang Wang having a son Tae, that she wished to place upon the throne, that lady, in concert with the Teih princess and her son Tae, formed a confederate correspondence with the Jung Teih, who broke into the city, drove Seang Weang from his palace, and set up Tae for king in his stead. Some of the Jung-teih then settled east of Luh-hwan,¹⁵ as far as Wei,¹⁶ where they became still more audacious in their plundering raids.

When Seang Wang had been four years in exile, he sent an envoy to Tsin, to make known his distress. But Wan the Duke of Tsin, having just succeeded to the power, wished first to arrange the affairs of his chiefdom; after which he raised troops, attacked the Jung-teih, killed the usurper Tae, and reinstated Seang Wang in the city of Lo.

At that time Ts'in and Tsin were powerful kingdoms. Wan the Duke of Ts'in forcibly removed the Jung-teih, and settled them between the Yin and Lo rivers, to the west of the Yellow River, where they were denominated the Red Teih and the White Teih.

Duke Muh of Ts'in obtaining the service of Yew-yu, eight nations of the Western Jung were induced to tender their allegiance to him.

Westward from Lung, in Meen-chow¹⁷ were the Keuen Jung and the Teih-kwan Jung. To the north of the K'e and Leang mountains and the King and Tseih rivers, were E-k'eu,¹⁸ the

¹⁴ On the site of the present city of Teang-Ching. N. lat. 33 deg., 52 min. E. long. 113 deg., 38 min.

¹⁵ N. lat. 34 deg., 10 min.; E. long. 112 deg., 10 min., the site of the present district of Jung.

¹⁶ The present E-fung city. N. lat. 34 deg., 55 min. E. long. 115 deg., 7 min., 30 sec.

¹⁷ This appears to have been on the site of the present Ts'in-chow, the chief city of which is N. lat. 34 deg., 36 min. E. long. 105 deg. 48 min.

¹⁸ These occupied the site of the present K'ing-yang Prefecture. N. lat. 36 deg., 3 min. E. long. 107 deg., 44 min., 30 sec.

Ta-le,¹⁹ the Woo-che,²⁰ and the Heu-yen²¹ Jung. To the north of Tsin were the Lin-hoo,²² Low-fan Jung;²³ and on the north of Yen were the Tung-hoo mountain Jung. These were all scattered among the valleys and ravines, each tribe having its own chief. They often assembled together to the number of a hundred or more, but were never able to combine as one.

About a hundred years later, Taou the Duke of Tsin sent Wei-Keang to make peace with the Jung Teih, when the latter paid Court to Tsin.

Some hundred years afterwards, Seang the Viscount of Chaou passed over Keu-choo mountain, subdued Ping²⁴ and Tae²⁴ reaching the Hoo-mih tribe.

Subsequently Chaou uniting his forces with Han and Wei, they exterminated Che-pih, and divided the territory of Tsin among them. Chaou held all north of Tae and Keu-choo; and Wei had Seho²⁵ and Shang-keun,²⁶ up to the borders of the Jung possessions.

Subsequent to this the E-keu Jung built cities for self-defence, but Ts'in gradually encroached upon their territory. When the Prince Hwuy came into power, he took twenty-five of their cities; and afterwards attached Wei, which surrendered the whole of Se-ho and Shang-keun to Ts'in.

In the reign of Chaou, King of Ts'in, the King of the E-keu Jung had criminal intercourse with the dowager Penen, who gave birth to two boys. She subsequently betrayed the King of the E-keu Jung, who was killed at Kan-tsenen.²⁷ Troops were raised and the E-keu exterminated.

Ts'in being then in possession of Lung-se,²⁸ Pih-t'e²⁹ and Shang-keun, built part of the Great Wall to keep off the Hoo tribes.

¹⁹ These were on the site of the present district of Chaou-yeh. N. lat. 38 deg., 48 min. E. long. 110 deg., 4 min.

²⁰ These lived on the site of the present King Chow. N. lat. 35 deg., 22 min. E. long. 107 deg., 22 min.

²¹ These seem to have inhabited the site of the present city of Chwaeg-leang. N. lat. 36 deg., 47 min. E. long. 103 deg., 20 min.

²² This was the site of the Suh chow. N. lat. 39 deg., 25 min., 12 sec. E. long. 112 deg., 29 min.

²³ The present Chin-ting Prefecture. N. lat. 38 deg., 10 min., 55 sec. E. long. 114 deg., 47 min.

²⁴ The present Yu-chow. N. lat. 39 deg., 50 min., 54 sec. E. long. 114 deg., 38 min.

²⁵ Site of the present Fau-chow-foo. N. lat. 37 deg., 19 min., 12 sec. E. long. 111 deg., 43 min.

²⁶ On the site of the present E-chuen. N. lat. 36 deg., 8 min. E. long. 110 deg., 2 min.

²⁷ On the site of the present Tsing-ho. N. lat. 37 deg., 9 min. E. long. 115 deg., 48 min.

²⁸ The present Teih-taou. N. lat. 35 deg., 21 min., 56 sec. E. long. 104 deg., 0 min., 39 sec.

²⁹ The present King-yang Prefecture. *Vide supra*.

Woo-ling the King of Chaou changing the national customs adopted the Hoo dress, practised horsemanship and archery, subjugated the Lin-hoo Low-fan tribes on the north, and built a further portion of the Great Wall. From Tae and the Yin mountain,³⁰ down to Kaou-keue,³¹ stockades were established; and Yun-chung,³² Yen-mun,³³ and Tae-keun³⁴ departments were fixed.

After this, Yen had a far-sighted general Ts'in K'ae, to whom was confided a mission to the Hoo tribes; and these putting implicit faith in him, gave in their allegiance. This was immediately followed by the subjugation of the Tung-hoo (Eastern Hoo), whose country lay conterminous with Yen for more than a thousand *le*. Ts'in Foo-yang who combined with King Ko to stab the King of Ts'in, was the grandson of Ts'in K'ae. Yen also built a part of the Great Wall, from Tsaou-yang to Seang-ping; and the departments of Shang-kuh,³⁵ Yu-yang,³⁶ Yew-pih-ping,³⁷ Leaou-se³⁸ and Leaou-tung³⁹ were fixed to keep the Hoo in check.

At this time there were seven states of respectable standing at war with each other, three of which were conterminous with the Heung-noo; a name which we now begin to find applied to the Jung tribes.

Afterwards in the time of Le Muh the Chaou general, the Heung-noo did not dare to encroach on the Chaou territory.

When Ts'in subverted the other six states, the Emperor Che-hwang put Mung Teen in command of a force of several hundreds of thousands; when he chastised the Hoo on the

³⁰ A hill on the boundary of the Turk territory, outside the barrier, north of Suh-chow.

³¹ Name of a precipitous mountain, north of the department of Suh-chow.

³² Comprising the present Tae-tung. N. lat. 40 deg., 5 min., 42 sec. E. long. 113 deg., 18 min., 30 sec., and Hwai-jin N. lat. 39 deg., 54 min. E. long. 113 deg., 9 min.

³³ Comprising the present Tae-chow, N. lat. 39 deg., 5 min., 50 sec. E. long. 130 deg., and Hwan-yuen, N. lat. 39 deg., 41 min. E. long. 113 deg., 47 min.

³⁴ Included in the site of the present Prefecture of T'ae-lung, the chief city of which is N. lat. 40 deg., 5 min., 42 sec. E. long. 112 deg., 35 min.

³⁵ On the site of part of the present Prefecture of Shun-teen, the capital of which is N. lat. 39 deg., 54 min., 13 sec.; E. long. 116 deg., 30 min., 30 sec.

³⁶ This occupied the site of the present districts of Ke-chow, N. lat. 40 deg., 5 min.; E. long. 170 deg., 30 min.; and Meihyun, N. lat. 40 deg., 23 min., 30 sec.; E. long. 116 deg., 54 min., 46 sec.

³⁷ This occupied the site of the present department of Tsun-hwa, N. lat. 40 deg., 11 min.; E. long. 118 deg., 1 min.; and part of the Prefecture of Yung-ping, N. lat. 39 deg., 56 min., 10 sec.; E. long. 118 deg., 55 min., 58 sec.

³⁸ Part of the present Prefecture of Yung-ping.

³⁹ This extends from the 40th to the 42nd degree of latitude, and from 116th to the 125th degree of longitude.

north, and took all the country south of the Yellow river; erecting stockades along the course of the stream. He built forty-four district cities overlooking the river, and removed his prisoners to populate them. He made a road straight through from Kew-yuen⁴⁰ to Yun-yang.⁴¹ Taking advantage of the precipitous hills on the border, the water-courses and ravines were deepened; and wherever it was practicable, defensive works were effected, from Lin-taou⁴² to Leaou-tung, more than ten thousand *le*. Again crossing the Yellow river, it passed the Yang mountain and went through Peh-seay.⁴³

At that time, the Tung-hoo⁴⁴ had become a formidable power, and the Yuh-te⁴⁵ were in a flourishing condition. The Shen-yu (or Prince) of the Heung-noo was named Tow-man. The latter, meeting with a reverse in his contest with T'sin, removed northwards.

More than ten years later, Mung Teen died, and the princes of the empire withstood the encroachments of Ts'in. The Central kingdom was plunged into a state of turbulence; and the criminals who had been located in the cities by Ts'in, all decamped.

The Heung-noo now feeling themselves less under restraint, gradually advanced across the Yellow river, till they were continuous with the central kingdom, at the old stockades.

The Shen-yu's eldest son was named Maou-tun, but his beloved consort having subsequently given birth to a boy, it was the aim of the Shen-yu to set aside Maou-tun, in favour of the younger. With this object in view, Maou-tun was despatched on a mission to the Yuede, and while absent on this service, an attack on the tribe was suddenly organised by his father Tow-man. By this movement Maou-tun was placed in the most imminent peril, and found it necessary to seek safety in flight; the better to effect which, he stole one of their swiftest horses. Returning to his father he was made full commander with the

⁴⁰ On the site of the present Yu-lin Prefecture, N. lat. 38 deg., 18 min., 8 sec.; E. long. 109 deg., 24 min., 30 sec.

⁴¹ On the site of the present Fung-tseang Prefecture, N. lat. 34 deg., 25 min., 12 sec.; E. long. 111 deg., 31 min., 35 sec.

⁴² On the site of the present Min-chow, N. lat. 34 deg., 24 min.; E. long. 104 deg.

⁴³ An ancient settlement 120 *le* to the east of Paou-gau-chow.

⁴⁴ The stock from which the present dynasty of China is sprung.

⁴⁵ The present Leang-chow, N. lat. 37 deg., 59 min.; E. long. 102 deg., 48 min.; Kan-chow, N. lat. 39 deg., 0 min., 40 sec.; Suh-chow, N. lat. 39 deg., 45 min., 40 sec., E. long. 99 deg., 07 min.; Yen-gan foo, N. lat. 36 deg., 40 min., 20 sec., E. long. 109 deg., 28 min.; and Sha-chow, N. lat. 40 deg., 15 min., E. long. 95 deg., 39 min., are on the site of the original kingdom of the Yue-te. Klaproth, to whom we owe many valuable identifications, thinks the Yue-te are the Getæ of Roman history, and suggests a similar origin for the Goths.

generalship of ten thousand cavalry ; but he seems to have seen through Tow-man's designs, as the sequel will show.

Having invented a sounding arrow, Maou-tun perfected himself in the science of equestrian archery. He then issued a general order to his troops, to the effect that, at whatever he should discharge the sounding arrow, all his followers should aim at the same, under pain of decapitation ; and at the chase, whoever should fail to shoot at the object at which the sounding arrow was aimed, should forthwith undergo capital punishment.

To ascertain how far his followers might be relied upon, he speedily put them to the test. Taking the sounding arrow he aimed at his favourite horse, when some of those about him hesitating to follow his example, he had them decapitated on the spot. Not long after this event, a sterner test was still in store ; his attendants stood aghast at seeing the sounding arrow let fly at his beloved wife ; and some fearing to comply with the standing order, the supreme penalty was at once and remorselessly inflicted. On a subsequent occasion, while engaged in the chase, he discharged the sounding arrow at the Shen-yu's favourite horse, and had the gratification of finding his attendants without exception take aim at the doomed victim. Feeling then that he was surrounded by a guard in whom his confidence would not be misplaced, he resolved on the accomplishment of the grand stroke of his project. Taking advantage of a general hunt, he seized a favourable opportunity to let go the sounding arrow at the Shen-yu his father, which movement being immediately followed by the darts of his followers, Tow-man fell mortally wounded on the field. This tragedy was followed up by the murder of his step-mother, his younger brother, and all the ministers who refused allegiance to him.

Having thus cleared the way Maou-tun set himself up as Shen-yu in his father's place in B.C. 209. Scarcely had he assumed power, however, when the Tung-hoo, who had become a powerful nation, hearing of the dark deeds of Maou-tun and his assumption of supreme power, sent an envoy to him, asking for Tow-man's swiftest charger. Maou-tun laid the matter before his ministers, who all counselled him to refuse the request. " Shall I," said he, " for the sake of a horse, be guilty of an unneighbourly action ?" and thereupon sent the charger. This transaction was interpreted by the Tung-hoo as an evidence that Maou-tun stood in fear of them ; and acting under this impulse, they forthwith despatched an envoy the second time, requesting the Shen-yu's consort. As before, he sought the advice of his attendants, who all indignantly counselled that the insult should be avenged by an appeal to arms. Maou-tun,

however, calmly replied—"Shall I for the sake of a woman, be guilty of an unneighbourly action?" So saying, he presented his beloved consort to the Tung-hoo. Elated with his success on these two occasions, the king of the Tung-hoo became still more overbearing towards the Heung-noo. A strip of neutral ground upwards of a thousand *le* in length lay between the two nations. This was now invaded by the Tung-hoo, who sent an envoy to Maou-tun, saying:—"We wish to take possession of the intermediate waste land, which is of no use to the Heung-noo." As before, Maou-tun sought the advice of his ministers on the question. Some of them replied, "This is abandoned territory, and it is of little consequence whether it be given or refused." Maou-tun full of wrath rejoined:—"Land is the foundation of a nation; how can it be given up?" Those who recommended an assent to the Tung-hoo proposal paid the penalty with their heads. Leading forward his troops in person, he issued the command that whoever lagged behind should suffer decapitation. By a rapid eastward movement, he took the Tung-hoo by surprise; who in their contempt for Maou-tun, had neglected all precautionary measures. The latter falling on them with his troops, cut the Tung-hoo army to pieces, killed the king, captured the people, and carried off the cattle. Returning from this expedition, he forthwith marched westward and chastised the Yue-te. He next turned his attention to Pih-yang the king of the Low-fan tribe in Ho-nan; recovered the Heung-noo territory that had been seized by the Ts'n general Mung Teen, and regained possession of the ancient Ho-nan stockades at the Chinese passes, as far as Chaou-na⁴⁶ and Foo-she.⁴⁷ He then invaded the territories of Yen and Tee.

About this time the state of Han was engaged in a feud with Heang Yu, and the central government was exhausted by military operations; while Maou-tun was daily gaining strength, till he had a force of more than three hundred thousand bowmen.

From their first ancestor down to the time of Tow-man, for upwards of a thousand years, the tribe had suffered the vicissitudes and alternations incident to dispersion and long separation; and there is no detailed record of the secular changes among them. Under Maou-tun, however, the Heung-noo attained their greatest power. They had brought into complete subjection all the wild tribes on the north, while China was their rival nation on the south. The following were the designations of their principal dignitaries and officers. The

⁴⁶ On the site of the present Ping-leang, N. lat. 35 deg., 34 min., 48 sec.; E. long. 106 deg., 40 min., 30 sec.

⁴⁷ Present district of the same name. N. lat. 36 deg., 42 min., 20 sec., E. long. 129 deg., 28 min.

family name of the Shen-yu was Leuen-te, and his national designation Chang-le kwa-too Shen-yu. *Chang-le* in the Heang-noo language signified "Heaven," and *Kwa-too* was "Son,"⁴⁸ while *Shen-yu* expressed "Majestic grandeur." The whole implied the "Shen-yu comparable to Heaven." Next in rank were the Right and Left Sage Regulos; then came the Right and Left Luh-le; then the Right and Left Great Generals; the Right and Left Great (*Too-wei*) Pacifiers; the Right and Left Great Tang-hoo; and the Right and Left Kuh-too Marquises. *Too-ke* in the Heung-noo language means "sage"; hence the heir apparent was always called the Left Too-ke (or Sage) Regulo. From the Right and Left Sage Regulos down to the Tang-hoo, there were altogether twenty-four chiefs, who were designated "Ten thousand cavalry," the greater of them commanding over that number, and the lesser several thousands. The great ministers who held hereditary rank were the Yen, the Lan, and subsequently the Seu-po family. These three were of noble rank, and the first and last were accustomed to intermarry with the family of the Shen-yu. The Seu-po presided over the judicial proceedings.

The Left Regulos and Generals were stationed in the eastern region, from Shang-kuh eastward as far as Wei-mih and Chaou-seen. The right Regulos and Generals occupied the western region from Shang-keun westward as far as the Te Keang.

The Shen-yu had his capital at Yun-chung in Tae. Each chief had his own territory, while the people moved from place to place, to procure pasture and water for their flocks and herds. The Right and Left Sage Regulos and the Right and Left Luh-le had the largest estates. The Right and Left Kuh-too Marquises assisted in the supreme government. Each of the twenty-four chiefs had under him Captains of a thousand, Centurions, Decurions, petty princes, assistant Too-wei, Tang-hoo and Tsu-keu.

In the first month of the year, there was a small gathering of chiefs in the Shen-yu's ancestral chapel. In the fifth month they had a great gathering in the Dragon city (*Lung ching*);⁴⁹ when they sacrificed to their ancestors, heaven, earth and the spiritual powers. In autumn, when the horses were in good condition, they had a great gathering to circumambulate the wood, and take the numbers of the people and animals.

⁴⁸ Thus we see the Heung-noo monarch claimed the title of "Son of Heaven," the same as the Chinese. In the Ouigour, a language descended from the Heung-noo, the same term would be *Tängre-uchul*. The transition does not seem very violent.

⁴⁹ The western Hoo are said to have been all accustomed to worship the dragon; hence the Heung-noo place of the assembly was dedicated to the Dragon Spirit; a vestige of Serpent worship.

According to their laws, he who drew a sword a foot in length against another was put to death; anyone guilty of highway robbery was deprived of his family possessions. Small crimes were punished with the rack; and greater crimes with death. The longest imprisonment did not amount to ten days; and all the prisoners in the country only numbered a few individuals.

Early in the morning the Shen-yu went outside the camp to worship the rising sun, and in the evening he worshipped the moon.

In sitting, the post of honour was on the left, facing the north.

Woo and *Ke*, the fifth and sixth days of the denary cycle were esteemed the chief. In funerals they used coffins and cases containing gold, silver and clothing; but they had no grave-mound, trees, or mourning apparel. Several tens or even hundreds of near dependants and concubines were accustomed to follow their master's funeral.

In undertaking any military enterprise, they were always guided by the moon. When the moon was about full, they would engage in battle; but when on the wane, they withdrew from the contest. When one beheaded a captive in battle, he received a goblet of wine, and was allowed to retain the booty. Captives were given as slaves to their captors; so that in war, every man was struggling for personal profit. They were clever at leading the enemy into an ambushade, and then surrounding them. The eagerness of the scramble was like birds flocking to the prey; but when calamity overtook them, they were dispersed like scattered tiles or passing clouds. Any one bringing home the body of a man slain in battle, got the property of the deceased.

At a subsequent period, in the north, they subjected the Hwan-yu,⁵⁰ the Keu-shih, the Ting-ling,⁵¹ the Kih-hwan-lung, and the Sin-le nations. The nobles and chief men of the Heung-noo then all submitted to Maou-tun, whom they looked up to as a wise prince.

The Han dynasty having just come into power, Sin, the prince of Han⁵² was removed to Tae, and made his capital at Ma-ye.⁵³ This city was forthwith surrounded by the Heung-noo, who took

⁵⁰ This is perhaps the same as Phillips mentions under the name of "Hun," a southern horde of the Tieh-ley, to the north of the country of the Ordos, which consisted of thirty thousand families. (Doolittle's "Vocabulary and Handbook," vol. ii, p. 206).

⁵¹ According to Phillips, this was an Alanic or Gothic race, inhabiting the borders of the Irtysh, Ob, and Jennissei rivers in Siberia. (See Doolittle's "Vocabulary," vol. ii, p. 203).

⁵² One of the feudal princes of the Han dynasty.

⁵³ The present city of Suh-chow in the north of Shan-tung, N. lat. 39 deg., 25 min., 12 sec., E. long. 112 deg., 27 min.

the place after a vigorous assault, in the autumn of B.C. 201. Having secured the submission and co-operation of Sin of Hân, the Heung-noo marched south, across the Kow stream, to attack Tae-yuen; and when under the walls of the capital, Kaou-te, the Emperor of the Han, took up arms and went in person to oppose them. It being winter time, what with the severe frost, the rain and the snow, twenty to thirty per cent. of the Emperor's troops lost the use of their fingers. Maou-tun, watching his opportunity, made an appearance of being defeated and fled, drawing on the Han troops after him. While the latter eagerly followed up the pursuit, Maou-tun concealed his best soldiers, and exposed the weak and emaciated. The Chinese, confident in their great numbers, told off three hundred and twenty thousand infantry for the pursuit. Kaou-te, with a detachment of these, arriving at Ping-ching,⁵⁴ before the great body had come up, Maou-tun immediately brought into the field three hundred thousand of his choicest cavalry, and surrounded the Emperor's party at Pih-tang hill.⁵⁵ For seven days all communication was cut off between the Chinese forces inside and those outside the circle, the enclosed party being thus deprived of provisions.

The Heung-noo horses on the west side were all white; on the east they were all white-faced greys; on the north they were all black, and on the south they were all bays. Reduced to extremities, Kaou-te quietly sent a messenger to the consort of the Shen-yu, to seek by liberal promises to secure her influence, in which he was successful. The consort addressing Maou-tun, said:—"Why should two sovereigns distress each other? Having now got possession of the Hân territory, the Shen-yu can never occupy it; moreover the Shen-yu sacrifices to the spirits of the Lords of Hân." Now Maou-tun having previously made an agreement with Wang Hwang and Chaou Le, two generals of Sin the prince of Hân, and having been long looking in vain for their arrival, at length began to suspect some plot between them and the Chinese; hence he acceded the more willingly to his consort's suggestion, and made an opening at one corner of the cordon. Kaou-te then ordered his troops to take their full complement of arrows, pointing outwards, and so passing straight out at the open corner, they joined the great body of the army. Maou-tun then withdrew his forces, and the Chinese troops ceased all hostile movements, while Lew King was sent to make a treaty of peace and friendship with the Heung-noo. Subsequently Sin of Hân, being a general under the Heung-noo, together with Chaou Le and Wang Hwang, several

⁵⁴ An ancient city to the east of Tae-tung foo.

⁵⁵ About 30 *le* to the east of Ting-tang heen, in Hin-chow.

times broke the treaty, forming bandit incursions on Tae, Yen-mun and Yun-chung. After no very long time Chin He rebelled, and in conjunction with the Sin of Han, formed a plot to attack Tae. The Chinese sent a commissioner Fan K'wae, who met the invaders, defeated them, and recovered the various cities of Tae, Yen-mun and Yun-chung, but did not go beyond the stockades.

About that time, parties of the Heung-noo frequently on meeting the Chinese general at the head of his troops, would tender their submission; on which account Maou-tun kept up a succession of raids on the country about Tae.

This was a cause of much anxiety to the Chinese, and eventually led the Emperor to adopt the notable expedient of sending a princess of the imperial house to Maou-tun, for his consort.

The lady Ung-choo was selected, and conveyed to the home of her new lord by Lew King. It was hoped that the issue of this union might be more imbued with Chinese susceptibilities and tendencies, and thus be the more easily brought under control. In pursuance of the same policy, the Chinese sent yearly presents of raw and wove silk, wine and food, thus aiming to cultivate Chinese tastes among them; and on each occasion the fraternal bond of peace and amity was renewed, so that for a time there was a cessation of Maou-tun's incursions.

Some time afterwards, Leu Wan the king of Yen rebelled, and with ten thousand of his cabal joined the Heung-noo; so that from Shan-kuh eastwards, the people were perpetually molested by their movements.

At length in the time of Haou-hwuy and Kaou-how, the son and relict of Kaou-te, Maou-tun, inflated with pride, was induced to indite a letter, which he sent an envoy to deliver to the empress dowager, couched in these terms:—"I, the solitary abject prince, born in a marsh and reared in a desert, among oxen and horses, have frequently approached the boundary, with a desire to roam over the middle kingdom. Your majesty now reigns *alone*, and I the solitary abject also dwell *alone*. When there is a want of harmony between two monarchs, matters are in every way unsatisfactory. Hence it is now my desire to exchange my present condition, for that which is still but in prospect." The empress on reading this was greatly enraged, and summoned her ministers Chin Ping, Fan K'wae, Ke P'oo and others, to consult about decapitating the envoy, raising troops and chastising Maou-tun. Fan K'wae said:—"Your servant will take a hundred thousand men, and with this force, will scour the country of the Heung-noo through and through." But Ke P'oo on being consulted, replied:—"K'wae deserves decapitation. For-

merly when Chin He raised an insurrection in Tae,⁵⁶ and K'wae was in command of the Chinese army three hundred and twenty thousand strong, the Heung-noo surrounded Kaou-te in Ping-ching, and K'wae was unable to break through the cordon; till it became the subject of a ballad among the people, thus:—

“ In Ping-ching the royal captive,
Is truly brought full low;
Nor food nor drink for seven days,
Nor leave to draw a bow.”

Now when the echo of such songs has scarcely died away, and the wound is ready to reopen, K'wae is about to set the empire in commotion, with his pretence to march across the country at the head of a hundred thousand troops. All this is mere double-faced talk. Moreover the barbarians of the east and north are only to be compared to beasts and birds; their good words are of no value; their evil words are unworthy of notice.” The empress assented, and forthwith dictated the following reply:—“The Shen-yu, not forgetful of his humble neighbour, has been pleased to honour her with an epistle. Your humble neighbour is apprehensive of the future, when she reflects on her advancing years, her falling hair, her decaying teeth, and unsteady footsteps. You have been misinformed; there is no cause for anxiety. I am innocent of any covert intention, and venture to hope for your pardon. I beg herewith to present two imperial carriages and two studs of horses for your ordinary use.” When Maou-tun read this letter, he again sent an envoy to return thanks, saying, he had been ignorant of the etiquette of the middle kingdom, and trusted her majesty would graciously pardon him. He begged to make an offering of some horses. The treaty of peace and amity was then renewed.

In B.C. 179, the Emperor Wan ascended the throne, and the treaty with the Heung-noo was again renewed.

In the summer of 177, the Right Sage prince of the Heung-noo, settled in Honan, and committed plundering depredations; whereupon the Emperor issued the following proclamation:—“China contracted a fraternal treaty with the Heung-noo, by which the latter were not to invade our territory; on which consideration they were treated with the greatest liberality. Now the Right Sage prince, leaving his own country, has settled with his followers in Honan, in opposition to all that is right; so that in passing to and fro, they have entered the stockades, taken captive and killed the officers and soldiers, invaded the barbarians of the Shang-keun stockades, thus rendering their ancient locations untenable; while the officials on the borders have taken to

⁵⁶ This act of insubordination on the part of Chin-he must have been previous to the one above-mentioned.

marauding adventures, and have become most intractable and unprincipled; and the treaty is set at nought." He then dispatched the border officials with carriages and eighty thousand cavalry to Kaou-noo;⁵⁷ and sent the general Hwan-ying to attack the Right Sage prince, who fled beyond the stockades. The emperor at the same time proceeded to Tae-yuen.

IV.

The Chinese monarch, however, was suddenly diverted from this enterprise, by the news that the State of Tse-pih had broken out in rebellion; so that it was necessary to recall Hwan Ying's army, and hostilities against the Heung-noo were for a time suspended.

The next we hear of the latter is in the year 176, when the Shen-yu resolved on a despatch to the Emperor, to the following effect:—"The Great Shen-yu, by the will of God ruler of the Heung-noo nation, respectfully salutes the Emperor of China. Formerly your Majesty was pleased to express your gratification on the conclusion of a treaty of peace and amity. In the same spirit, the Right Sage prince bore without complaint the menacing insults of the Chinese officials on the border; till the matter assumed such dimensions, that it became a question of deliberation by Nan-che the Marquis of E-leu and others, how to avoid a breach of the treaty and maintain the fraternal relations. Once and again letters of remonstrance were received from Your Majesty; but when I despatched an envoy with a reply, he did not return, nor was there any messenger from Your Majesty, while the case was treated by you as a *casus belli*. Now in consequence of a slight breach of the treaty by some petty officials, you pursued the Right Sage prince till he was driven westward into the territories of the Yeu-te. There, however, Heaven favoured our cause: our officers and troops were loyal and true; our horses were strong and spirited; and by slaughter, decapitation, subjugation and pacification, our army effected the complete reduction of the Yue-te; while Low-lan,⁵⁸ Woo-sun,⁵⁹ Hoo-kee and the adjacent kingdoms, to the number of twenty-six in all, without exception, submitted to the Heung-noo; and thus all the bowmen nations are united as one family. Having also tranquillized the northern lands, we are now desirous that there should be a cessation of hostilities, and that the troops should send their horses to pasture. Let the past be forgotten and the treaty renewed; that the people

⁵⁷ The present district of Gan-sih in Shen-se, N. lat. 36 deg., 48 min., E. long. 106 deg., 53 min.

⁵⁸ A country lying on the West of China, known also by the name of Shen shen.

⁵⁹ A country lying on the north of the Teen shan range.

on the borders may enjoy peace as it was in the days of old; and so the young may attain to maturity, the aged may live unmolested, and uninterrupted happiness prevail from age to age."

About the same time, the Chinese Emperor would seem to have been troubled with some suspicions regarding the Heung-noo, and despatched the commissioner Ke Hoo-tseen with a letter, in which he requested the Shen-yu to send him a camel, two riding horses and two studs of carriage horses. Uneasy about the approach of the Heung-noo to the stockades, he ordered all the officials and people dwelling on the borders to remove their habitations to a considerable distance. The Shen-yu on his part, complied with the Emperor's request, and sent forward the offerings with the above epistle. On the arrival of the missive at the Chinese court, during the summer of 175, a consultation was held to discuss the expediency of attacking the Heung-noo or renewing the treaty of peace with them. Peaceful counsels prevailed; it was the general opinion that the Shen-yu having just acquired the prestige of victory over the Yue-te, it would be impolitic to make an attack on them then. Besides, it was argued by some that the conquest of the Heung-noo territory would be of little advantage to China; the waters were salt and the country uninhabitable; so that the far wiser method would be to renew the treaty. The Emperor acceded to the suggestion.

Consequent on these deliberations, the following year an envoy was despatched to the Heung-noo with a letter to this effect:—"The Emperor of China respectfully salutes the Shen-yu of the Heung-noo. The envoy Ke Hoo-tseen has brought me a letter, in which you say that you are desirous that there should be a cessation of hostilities, that the past should be forgotten and the treaty renewed, that the people on the borders may enjoy peace, and uninterrupted happiness prevail from age to age. All this has my perfect approbation, being in accordance with the policy of the sage Monarchs of ancient times. When China entered into a fraternal treaty with the Heung-noo, the Shen-yu was treated with the greatest liberality. The breach of the treaty and the interruption of amicable relations has always been on the side of Heung-noo. But the trespass of the Right Sage prince having already been pardoned, I will not now accumulate reproaches. If you really entertain the feelings expressed in this letter, let strict injunctions be given to all your officers, to beware of breaking the treaty in future, and that they manifest fidelity and respect in accordance with the tenor of your epistle. We hear from the envoy, the great merit you have acquired by your military enterprises, in subjugating the nations; and in recognition of your arduous achievements, I

now beg to present you with a light figured lining imperial embroidered robe, a light long embroidered tunic, and a light variegated gown; also a golden hair comb, a gold ornamented waist-belt, and a buffalo-horn belt fastening; also ten pieces of twilled silk, thirty pieces of variegated silk, and forty pieces, each of carnation satin and green silk." These articles were then handed over to the proper functionary, who caused them to be conveyed to the Shen-yu.

In the 10th month of this year, Maou-tun died, and was succeeded by his son Ke-yuh, who assumed the title of (*Laou-shang*) "Venerable high" Shen-yu. On his accession, the Emperor Wan-te, following up the example and policy of his ancestor, sent a princess of the imperial house for a consort to the newly-elevated chieftain, and appointed the eunuch Chung-hing Yue to escort her to her new home. Yue would fain have excused himself, but the monarch overruled all his objections. "If I am compelled to go," he said, "it will be an unfortunate day for the house of Han." On reaching the Heung-noo camp, Yue, having resolved to make good his words, tendered his submission to the Shen-yu, who became much attached to him. The confidence thus established ensured to Yue a certain liberty of speech; and when he saw the Shen-yu giving way to a fondness for the dress and the food of China, he did not fail to raise a warning voice, and thus addressed his chief:—"The entire Heung-noo population is not equal to that of one Chinese province; but one cause of their strength is the simplicity of their dress and food, in which they are independent of China. Now should your Highness change the national customs, and introduce a taste for Chinese luxuries, while the supply of these are only sufficient to meet about one fifth of the requirements, the Heung-noo will all go over to the Chinese. Suppose your people were clothed in Chinese silk, in riding about among the thorns and brushwood, their robes and tunics would be unavoidably torn and destroyed; and it is evident that for strength and durability they are not to be compared to good skin garments. It will be wise also to give up Chinese table delicacies, which are neither so convenient nor so wholesome as good milk and cream." Yue also instructed the officers of the Shen-yu in the art of keeping records, in order that they might preserve a register of the people and the cattle. When the Emperor of China sent a letter eleven inches in length, inscribed:—"The Emperor respectfully salutes the Shen-yu of the Heung-noo," with the presents and complimentary expressions, Chung-hing Yue induced the Shen-yu to send a return letter twelve inches long, with a larger and longer seal, and audaciously worded:—"The great Shen-yu of the Heung-noo, the offspring of heaven and earth, ordained by the

sun and moon, respectfully salutes the Emperor of the Han," with the usual presents and complimentary expressions. When the Chinese envoy disparagingly remarked that the Heung-noo were wanting in their duty towards the aged, Chung-hing Yue replied :—" You Chinese employ agricultural troops to defend the borders ; but when they are sent on a military expedition, so miserably are they found in necessities, is it not a fact that their aged parents deprive themselves of their warm clothing and comforts to supply their sons with requisite food during the campaign ?" The envoy assented, and Yue continued :—" The Heung-noo make war the business of life. The aged and infirm being unable to fight, the choice food is given to the healthy and robust, that they may be able to stand the fatigues of the camp. Thus father and sons are helpful to each other. How then can you say that the Heung-noo are wanting in their duty towards the aged ?" Continuing the discussion, the envoy remarked :—" Among the Heung-noo, father and son sleep in the same cabin. When the father dies, the son takes the mother to wife. When a brother dies, his widow is taken by a surviving brother. They neither wear cap nor sash, and know nothing of the rites of the entrance-hall or the guest-chamber." " As to that," replied Yue, " the Heung-noo live on their flocks and herds, and clothe themselves with the skins. The flocks being dependent on the herbage and water, it is necessary, from time to time, to remove to fresh localities. Hence, in time of danger, the men practice equestrian archery ; and in the seasons of security, they live at ease and free from care. They have few restraints, and are unembarrassed by conventional forms. The intercourse of prince and subject is simple and durable ; and the government of the nation is consolidated as that of a single body. When a father or elder brother dies, the son or younger brother takes the widow to wife, as they abhor the mixture of families. Hence although there are disorders among the Heung-noo, yet they preserve the family stem untainted. Now in China, though they do not openly take the widows of their fathers and brothers to wife, yet while matrimonial etiquette requires more distant alliances, this is a fruitful source of murders ; and even the change of the surname frequently arises from this custom. Then as to defects in the rites, the ill-feeling that is generated by stringency in the intercourse between superiors and inferiors is such that it may be said, by the time the edifice reaches the summit, the strength of the builders is utterly exhausted. The husbandman spends his force in the labours of tillage and mulberry culture, to procure a supply of food and clothing ; and you build cities and outposts for self-defence. But in time of danger the people are not trained to warlike exercises ; and in time of peace every one

is taken up with his own business. Pshaw! people living in mud huts, with but half a costume and scarcely the power of intelligible speech, what have they to do with caps!" After that when the envoy wished to discuss the merits of Chinese civilization, Yue abruptly cut him short, saying:—"Let not the Han envoy spend his words. The presentation of silks and grain from the Han to the Heung-noo is merely a clever device to estimate their numbers. Nor are these gifts in themselves without their drawbacks. On the contrary, when the grain is ripe, it is trodden down by mounted troops, and there is an end of their harvest, much misery and distress being the natural result." Yue continued assiduously day and night to instruct the Shen-yu in the principles of political economy.

A few years of comparative peace followed, till B.C. 166, when the Shen-yu at the head of a hundred and forty thousand cavalry entered Chaou-na by the Seaou barrier, killed Sun Ngang the commandant of Pih-t'e, and carried off a great number of the people and cattle. He then advanced on Pang-yang,⁶⁰ whence he sent his mounted troops to set fire to the Hwuy-chung palace.⁶¹ On the return of his cavalry from this expedition, he marched on Kan-tseuen⁶² in the department of Yung. Wan-te on his part was adopting measures to meet the emergency. The high official Chang Woo was gazetted as general, with a force of a thousand chariots, and a hundred thousand cavalry troops, distributed over the Chang-gan region, to ward off the Hoo banditti. Lew King the Marquis of Chang was appointed territorial general of Shang-keun; Wei Suh Marquis of Ning, as general of Pih-t'e; and Chow Tsaou Marquis of Lung-leu, as general of Lung-se. Chang Seang-joo Marquis of Tung-yang was made general in chief, and Tung Hih Marquis of Ching, general of the vanguard. Under this leadership, a vast levy of carriages and cavalry set forward to attack the Hoo.

The Shen-yu was more than a month inside the stockades, but he retired on the approach of the Chinese army, and the troops of Han returned, without a blow having been struck.

The Heung-noo were becoming daily more overbearing; every year they crossed the boundary, killing and carrying off the people and cattle in immense numbers; more especially in Yun-chung and Leaou-tung; and up to the region of Tae, there was a loss in all of more than ten thousand persons. The Chinese being exceedingly distressed by these proceedings, an envoy

⁶⁰ An ancient city somewhere near the site of the present Chin-yun, N. lat 36 deg., 03 min., E. lon. 107 deg. 03 min.

⁶¹ A palace built by the emperor Woo-te, forty miles west of Yung-heen, or the present Fung-tseang-foo city.

⁶² This city still exists, about 300 *le* distant from the capital of Shen-se, being the site of a palace built by Che-hwang, the book burner.

was despatched with a letter to the Heung-noo chief. The Shen-yu sent a Tang-hoo with a return letter acknowledging favours, and power to discuss the renewal of the treaty.

In 162 the Emperor again addressed a letter to the Shen-yu in the following terms :—"The Emperor of China respectfully salutes the great Shen-yu of the Heung-noo. Your highness having sent a Tang-hoo, the Tseay-keu Teaou-nan, and the Gentleman-usher Han-Leaou, with two horses, these I have respectfully received. When my imperial predecessor erected the Great Wall, all the bowmen nations on the north were subject to the Shen-yu ; while the residents inside the wall, who wore the cap and sash, were all under our government : and the myriads of the people, by following their occupations, ploughing and weaving, shooting and hunting, were able to provide themselves with food and clothing. No separations took place between fathers and sons ; while princes and subjects lived together in peace, free from violence and oppression. Now it is reported that there are certain disreputable people, who seeking to free themselves from their obligations, have turned their back on their duty as subjects and abandoned the treaty ; disregarding the welfare of the people, and ignoring the condition of harmony between the two princes. But these are now matters of the past. Your letter says :—"The two nations being now at peace, and the two princes living in harmony, military operations may cease, the troops may send their horses to graze, and prosperity and happiness prevail from age to age, commencing a new era of contentment and peace." That is extremely gratifying to me. The sages practised daily renovation, renewing their reformatations and beginning afresh ; giving rest to the aged and causing the young to attain maturity, each fulfilling his responsibility and completing his allotted span of life. Should I, in concert with the Shen-yu, follow this course, complying with the will of heaven, then compassion for the people will be transmitted from age to age, and extended to unending generations, while the universe will be moved with admiration, and the influence will be felt by neighbouring kingdoms inimical to the Chinese or the Heung-noo.

"As the Heung-noo live in the northern regions, where the cold piercing atmosphere comes at an early period, I have ordered the proper authorities to transmit yearly to the Shen-yu, a certain amount of grain, gold, silks of the finer and coarser kinds, and other objects. Now peace prevails all over the world ; the myriads of the population are living in harmony, and I and the Shen-yu alone are the parents of the people. On taking a retrospect of the past, I find trifling matters and minute causes have shaken the stability of subjects,

and induced defective allegiance; all quite unworthy to mar the harmony that ought to exist between brethren.

"I have heard that heaven is not partial in its overshadowing, nor is earth one-sided in its supports. If you and I both forget the trifles of the by-gone, and walk together in the broad path, regardless of the evils that are past, uniting the people of the two nations as the children of one family, the great mass of the population will be blessed with peace and prosperity, while they will be preserved from perils; and the benefits will extend even to the lower creation, the denizens of the forest, the ocean and the firmament. Hence, in the future, let us not merely walk in the way of heaven, but overlook all that is past. I will freely pardon all my subjects who have run away or been carried captive; and let not the Shen-yu seek the rendition of Chang-ne and others who have submitted to the Han. It is said that the ancient kings and emperors made clear stipulations in the treaties, and were ever true to their words. Let your highness ponder well. After the conclusion of the treaty of peace throughout the world, take notice, the Han will not be the first to transgress."

The Shen-yu having ratified the treaty, the emperor notified the recorder, saying:—"The great Shen-yu of the Heung-noo has transmitted to me a letter signifying that the treaty of friendship is now settled. Let no man dispute the benefits either personally or as to territory. The Heung-noo shall not come within the stockades; Chinese subjects shall not pass beyond the stockades. Death is the penalty of transgression. Thus friendly relations may be long continued without a breach. I have sanctioned it; let it be widely circulated through the empire, that the matter may be clearly understood."

In 160, Laou-shang Shen-yu died, and was succeeded by his son Keun-shin Shen-yu, to whom Chung-hing Yue renewed his oath of allegiance, and the treaty of friendship with the Chinese was also renewed. The new chief, however, had been little more than a year in power, when the treaty was thrown to the winds, and he poured thirty thousand cavalry into Shang-keun, and a similar force into Yun-chung, killing and taking captive immense numbers of the people. Three Chinese generals were thereupon appointed, and the formation of military colonies was initiated. Chang-woo was entrusted to establish a colony in Pih-te; Soo-e held a similar commission for Kow-choo in Tae; and Meen was appointed to form a colony at Fei-hoo-kow in Chaou; while every assailable point on the borders was strengthened to repel the Hoo invaders. Three other generals were appointed to important military posts; Chow A-foo was placed at Se-lew, to the west of Chang-gan; Sew-le at

Keih-mun; and Lew-le at Pa-shang, both posts on the north of the river Wei, to keep back the Hoo at those points. When the Hoo cavalry crossed the border at Kow-choo in Tae, the news was telegraphed to Kan-tseun and Chang-gan by beacon fires. It was a matter of months by the time the Chinese troops reached the border. The Heung-noo were already far away beyond the stockades, and the Chinese expedition came to an end.

In the summer of 157, the Emperor Wan-te died, and was succeeded by his son King-te. Scarcely had the new prince ascended the throne, when disaffection began to manifest itself among the feudal states. Suy the king of Chaou sent a messenger secretly to enter into communication with the Heung-noo. Woo and Tsou rebelled, and wished to unite with Chaou in a plot to invade the border. The emperor however surrounded and disabled Chaou; while the Heung-noo declined to join the confederation. Amicable relations were renewed between the Shen-yu and the Chinese court. A treaty was again signed, and a market was opened at the barrier. Presents were forwarded to the Heung-noo, and an imperial princess was sent to cement the alliance with the Shen-yu. The treaty was tolerably well observed throughout the reign of King-te; towards the close there were some petty incursions on the borders, though there was no serious raid.

Woo-te ascended the throne in 140, the early years of his reign being marked by occasional irruptions of his northern neighbours. In 135, however, they requested a renewal of the treaty of peace, which was agreed to by the emperor after some deliberation, and an explicit declaration as to the stringency of the stipulations. The Heung-noo were treated liberally; the market at the barrier was continued, and handsome gifts were forwarded; so that from the Shen-yu downwards, the Heung-noo all became firmly attached to the Chinese, and confined their excursions to the outside of the Great Wall. An influence in an opposite direction, however, was at work at court, and within two years of the signing of the treaty a deep laid plot was set on foot by the Chinese, for cutting off the great body of the Heung-noo. Nee Yih, an old man, a native of Ma-yeh, was sent as it were clandestinely to negotiate with the Shen-yu. He pointed out to the latter the wealth that might be obtained by the capture of Ma-yeh, and pretended to sell the city to him. Allured by the prospect of gain, and trusting to the representations of Nee, the bait began to take. The Shen-yu entered the Woo-chow stockade with a hundred thousand mounted troops, while the Chinese had more than three hundred thousand troops lying in ambush in a valley near Ma-yeh. The high dignitary

Han Gan-kwo was general of the covering force, to protect the four generals who were to draw the Shen-yu into the ambushade. When then Shen-yu had entered the Chinese stockade, before he was within a hundred *le* of the Ma-yeh, he was astonished to see the cattle spread over the hills and no one to look after them. He attacked a military post, which was defended by the Commandant of Yed-mun, who happened to be then making his circuit. The latter was captured by the Shen-yu, who was about to run him through; but to save his life, he revealed the Chinese plot. At this revelation the Shen-yu became greatly alarmed, and exclaimed:—"Truly I expected something of this kind." He then drew off his troops, and returned, remarking,—"It was providential that I met with this commandant." He designated the commandant a heavenly king. The Chinese troops having confidently reckoned on the Shen-yu entering Ma-yeh, had relaxed their vigilance; but as he did not come, their scheme proved a great collapse. Discovering the state of matters, the general Wang Kwei led forward his forces beyond Tae, intending to overtake and capture the Heung-noo store waggons; but on hearing that the Shen-yu had returned, the greater part of the troops refused to proceed. Considering that Wang Kwei was the originator of this plot, and now having failed to follow up the fugitives, he was condemned to death by the emperor. From that time the treaty was abandoned by the Heung-noo, who attacked the stockades on the high road, and were constantly committing acts of brigandage on the border, too numerous to mention. They were very glad, however, to avail themselves of the market at the barrier, having become fond of Chinese commodities; and the Chinese were very desirous to cultivate this barrier traffic, as a means of enfeebling their rivals.

Since the failure of the military *ruse* at Ma-yeh, the Heung-noo had made themselves especially obnoxious to the Chinese by their perpetual raids; and it was on occasion of an incursion on the Shang-kuh region, in 129, that the Chinese resolved on a grand and simultaneous attack, under the conduct of four of their ablest generals, each at the head of ten thousand horsemen. The Barrier general, Wei Tsing, sallied forth from Shang-kuh pursued the Hoo as far as Lung-ching (the Dragon city), and killed and captured seven hundred of the enemy. Kung-sun Ho followed up the chase beyond Yun-chung, but without success. Kung-sun Gaou issued from the Tae region, but was defeated by the Hoo, with a loss of more than seven thousand men. Le Kwang advanced from Yen-mun, but was defeated and taken prisoner by the Hoo; from whom he made his escape by a stratagem. Kung-sun Gaou and Le Kwang were imprisoned

on account of their failure, and condemned to death. The penalty was commuted, however, and they were shorn of all official rank. In the winter of the same year several thousands of the Heung-noo were engaged in depredations on the border, especially at Yu-yang. The general Han Gan-kwo was in consequence sent to establish a military colony there, with a special view to ward off these disasters.

The following autumn twenty thousand Heung-noo horsemen entered the Chinese territory, killed the governor of Leaou-se, and took more than two thousand prisoners. They afterwards defeated the garrison of Yu-yang, killing and taking over a thousand men, where they surrounded Han Gan-kwo with a like number of retainers. The Chinese general was reduced for a time to the greatest extremities, till assistance arrived from Yen⁶³ when the Heung-noo made off. They then entered Yen-mun, where they killed and captured more than a thousand people. Wei Tsing went to meet them at Yen-mun, with a force of thirty thousand horsemen; while Le Seih attacked them from Tae, and succeeded in killing and capturing several thousands.

Next year Wei Tsing again organised an expedition against these nomades, whom he pursued from Yun-chung as far as Lung-se. He attacked the Pih-yang King of the Low-fan on the south of the Yellow river; killed and captured several thousand of the tribe, and carried off more than a million sheep. The Chinese having thus gained possession of all the land south of Suh-fang⁶⁴ restored the ancient stockades first erected by the Ts'in general, Mung-teen; taking advantage of the Yellow river as a natural defence on the west. They abandoned the district of Tow-pieh in Shang-kuh to the Heung-noo, and built the city of Yang-t'e.

In the early part of the year 126, Keun-shin Shen-yu died, when the rightful succession of his son and heir Yu-tan was contested by his uncle the Left Kuh-le prince, E-che-seay. In the strife that ensued, Yu-tan being defeated, fled to China, swore allegiance to the emperor, and was created Marquis of Poo-gan. He died not many months after the event. The claims of E-che-seay being then undisputed, he was acknowledged Shen-yu in the summer of the same year. The complimentary policy of the Chinese being now at an end, the commencement of the new chief's reign was signalled by an irruption into Tae of several tens of thousands of Heung-noo cavalry, who killed the governor Kung Yew and took over a

⁶³ An ancient state occupying the site of Shun-teen-foo, the present metropolitan prefecture of China.

⁶⁴ On the site of the present prefectural city of Ning-hea, N. lat. 38 deg., 32 min., 40 sec.; E. long. 106 deg., 07 min., 32 sec.

thousand captives. In autumn they made a similar raid in Yen-mun, where they killed and captured more than a thousand people.

Next year they again entered Tae, Ting-seang,⁶⁵ and Shang-keun, with thirty thousand cavalry in each place, on which occasion they killed and captured several thousand persons. The Heung-noo Right Sage prince, irritated against the Chinese for seizing the country south of the Yellow river and building Suh-fang, made several brigandish raids on the border, and entering the territory in question, attacked and harassed Suh-fang, killing and capturing vast multitudes of the officials and people.

In the spring of 124 Wei Tsing was sent with a force of more than a hundred thousand, to endeavour to put a stop to these irruptions. Six generals were in command under Wei, and the greater part of the army issued by the Kaou-keue stockade in Suh-fang district. The Right Sage prince, secure in his belief that he was beyond the reach of the Chinese, had given himself up to excess of wine; but the Han troops pushing forward six or seven hundred *le* beyond the stockade, managed to surround him at night in his encampment. Becoming aware of his position, he saw that no time was to be lost, and by a resolute effort broke through the cordon and made his escape to the north, followed by some of his choicest cavalry. Meanwhile the Chinese captured ten or more of the Heung-noo petty princes and upwards of fifteen thousand men and women. In autumn ten thousand Heung-noo cavalry made a raid on the Tae region, killed the governor, Choo Ying, and carried off more than a thousand people.

The following spring the Commander-in-chief Wei Tsing conducted an expedition on the largest scale, with a mounted force of upwards of a hundred thousand, under the leadership of six of China's most distinguished generals. Advancing from Ting-seang, at a distance of several hundred *le*, they came upon the Heung-noo, when a great carnage ensued, and from first to last the latter lost over nineteen thousand killed and captured. The Chinese also lost two generals and more than three thousand of their cavalry. Soo Keen, the general of the Right, managed to escape; but Chaou Sin the Marquis of Heih, the general of the Van, being in command of ill-disciplined troops, was less fortunate. Falling into the hands of the Heung-noo, he tendered his submission. Chaou Sin was originally the Heung-noo petty prince of Ming, but went over to the Chinese, by whom he was created Marquis of Heih. The generals of the Van and the

⁶⁵ An ancient district of which the city stood 380 *le* north of the city of Shen-yeng.

Right, having led forward their troops together by a different route, fell in with the Shen-yu's army and were cut to pieces. The Shen-yu testified his satisfaction at having regained the Marquis of Heih by making him a Regulo, next in rank to himself, while he gave him his own sister in marriage. Naturally the question of Chinese politics was much discussed, and at the instigation of Chaou Sin, the Shen-yu removed his camp north as far as the sandy desert, in order to deceive the Chinese, and induce them to relax their military vigilance; hoping thereby to be able to take advantage of their weak points, without going near the stockades.

In 122 some tens of thousands of Heung-noo horsemen entered Shang-kuh, and killed several hundred people.

In the spring of 121 Ho Keu-ping, a youth of eighteen, the nephew of Wei Tsing, was put in command of ten thousand troops, with the title of Light-horse general. Leaving Lung-se with this army, he passed Yen-ke mountain⁶⁶ for a distance of upwards of a thousand *le*, and in the course of six days' fighting, killed and captured upwards of eight thousand of the enemy and carried off the prince of Heu-choo's⁶⁷ gold idol⁶⁸. In summer the Light-horse general, accompanied by the Marquis of Ho-ke, led several tens of thousands of cavalry from Lung-se north for two thousand *le*, passed the Ken-yen lake, and attacked the encampment at Ke-leen⁶⁹ mountain; where they killed and captured more than thirty thousand, including the petty prince of Pe,⁷⁰ and some ten lesser dignitaries. About the same time, the Heung-noo made a raid on Yen-mun in Tae, killed and captured several hundred people. The Chinese Commissioner, the Marquis of Po-wang, accompanied by the general Le Kwang, left Yew-pih-ping and made an attack on the Heung-noo Left Sage prince. The latter, however, surrounded Le; and of his four thousand followers, more than half died. There were an extraordinary number also killed and taken captive, till the troops of the Marquis of Po-wang came to the rescue. General Le himself made his escape, having lost the whole of his troops.

⁶⁶ This mountain lies 50 *le* to the south-east of the present Shan-tan, district city in Kan-sub.

⁶⁷ One of the Heung-noo dependent princes.

⁶⁸ This is said by the commentators to have been a Buddhist idol; and it is remarkable as one of the earliest instances on record of idolatry in the east. The head-quarters of Heung-noo worship was in former times at the foot of the Kan-tseuen mountain, 90 *le* to the north-west of the prefectural city of Yun-yang, the site of which was in the western part of the present prefecture of Se-gan in Shen-se; but when they were expelled from this territory by the troops of Ts'in, they removed their idol and sanctuary north, to the territory of Heu-choo.

⁶⁹ Ke-leen is said to be the Heung-noo word for "heaven."

⁷⁰ This was also one of the dependent princes of the Heung-noo.

The Marquis of Ho-ke and the Light-horse general gave their opinion that Le and the Marquis of Po-wang should both be sentenced to death, for their disgraceful failure; but the Emperor was pleased to pardon them, at the same time depriving them of all rank and dignity. In autumn, the Shen-yu, irritated at the great slaughter of the people by the Chinese in the territories of Kwan-ya and Heu-choo, determined to put to death the kings of these two states. The two princes, however, getting wind of the Shen-yu's intention, resolved to submit to the Chinese. An embassy, becoming the occasion, conducted by the Light-horse general, was sent to meet them. When it came to the point of action, the prince of Heu-choo, seems to have been troubled by some movements of conscience, and showed an inclination to draw back; but the question was decided by Kwan-ya, who put the other to death, united the retainers of Heu-choo to his own, and with the whole body, over four thousand in number, made his way to the capital, and tendered his allegiance to the emperor of China. The territory of Kwan-ya having thus become annexed to the Chinese empire, the raids of the Hoo in Lung-se, Pih-te and Ho-se⁷¹ became much less frequent. The poor people from Kwan-tung were removed to populate the newly acquired Heung-noo lands to the south of the Yellow river; and the frontier guards from Pih-te westward were reduced to half the number.

The following spring the Heung-noo made incursions in Yew-pih-ping and Ting-seang, several tens of thousands of horsemen in each, killing and capturing more than a thousand people.

In the spring of 119 a council was held to deliberate on the state of the Heung-noo question. It was observed that the Shen-yu was acting under the advice of Chaou Sin the Marquis of Heih, in removing his camp to the north of the sandy desert, under the impression that the Chinese troops could not follow them up there. Now the Chinese resolved to disabuse them of that idea; for which purpose they raised a force of a hundred thousand cavalry, and including the baggage bearers they mustered altogether a hundred and forty thousand horses besides the commissariat department. The conduct of the expedition was equally divided between the Commander-in-chief Wei Tsing and the Light-horse general Ho Keu-ping. The Commander-in-chief started from Ting-seang, and the Light-horse general from Tae, it having been previously arranged that they should make a joint attack on the Heung-noo in the sandy desert. The Shen-yu being informed of the Chinese movement, removed his *impedi-*

⁷¹ On the site of the present district of Shin-muh, of which the city is in N. lat. 38 deg., 55 min., 30 sec.; E. long. 110 deg., 06 min. Ho-se signifies "west of the river," a name corresponding to its actual position on the inner bank of the eastern limb of the great bend of the Yellow river.

menta to a distance, and with the choicest of his troops waited the arrival of the Chinese commander on the north of the desert. A fierce contest ensued, which lasted a whole day, until the evening, when a high wind springing up raised one of those dust storms that completely obscured the vision of the belligerents. The Chinese were not idle however, but deployed their right and left wings, and surrounded the Shen-yu. The latter was anxious to give battle, but could not get an engagement with the Han troops; so with merely a few hundred sturdy cavaliers he broke through the Chinese cordon and fled to the north-west. The Chinese troops pursued him at night but could not come up with him, although they killed and captured nineteen thousand of his followers. Pushing northward as far as Chaou Sin's city, at the Teen-yen mountain without success, they returned. In the flight of the Shen-yu a number of the Chinese soldiers got mixed up with his followers, and thus shared his fortunes. After this flight, nothing having been heard of the Shen-yu for a long time by the great body of his people, the belief was gaining ground that he was dead; and acting on this impression the Right Kuh-le prince assumed the supreme power. But when the old Shen-yu returned to his people, he was cordially received, and the Right Kuh-le resigning all claim, returned to his former rank. Advancing over two thousand *le* beyond Tae, the Light-horse general fell in with the Left Sage prince, when a battle ensued, in which the Chinese killed and captured more than seventy thousand people. The prince and his generals all took to flight. The Light-horse general went on to Lang-keu-seu mountain, where he made an offering to the spirits; he presented a sacrifice at the Koo precipice, took a view of the Han lake, and then returned. From this time the Heung-noo removed to a greater distance from China, and the chief's encampment was never afterwards pitched to the south of the sandy desert. From Suh-fang the Chinese crossed the Yellow river, spreading westwards, gradually appointing territorial officers, with subordinate officials and soldiers to the number of fifty or sixty thousand, and constantly encroaching till they were north of the Heung-noo boundary. From the first, when the two Chinese generals surrounded the Shen-yu, the latter lost altogether some eighty to ninety thousand of his people; while the Chinese lost considerably over ten thousand and more than a hundred thousand horses. Altogether the Heung-noo were sorely reduced, yet they removed to so great a distance that the Chinese horses were now too few to follow up the pursuit. In the emergency to which he was now driven, the Shen-yu, acting on the advice of Chaou Sin, sent an envoy with fair words to the Chinese court, to ask for a treaty of peace. The Emperor laid the matter before his

ministers for consultation. Some recommended a treaty; but others gave their opinion that the Heung-noo should be received as subjects. The high minister and senior historiographer, Jin Chang, said: "The Heung-noo are recently reduced, it will be well to make them extraterritorial subjects, and let them pay court at the borders." Jin's counsel was approved, and he was himself appointed the envoy to carry this decision to the Heung-noo camp. On hearing Jin's proposal, the Shen-yu was greatly enraged, and detained him, nor did he deign to send a reply. On a previous occasion one of the Heung-noo envoys had tendered his submission to the Chinese Emperor, and the Shen-yu now held the Chinese envoy as a hostage for the other.

Scarcely had the last of the Chinese army returned from their arduous campaign, when the Light-horse general Ho Keu-ping died, in the autumn of B.C. 117, after which there was a cessation of hostilities for several years.

After a reign of thirteen years E-che-seay Shen-yu died in 114, and was succeeded by his son Woo-wei.

Towards the close of the following year the Emperor resumed the ancient practice of making a tour of inspection through the provinces. At the same time troubles supervened in the south, and expeditions were organised against the states of Southern⁷² and Eastern Yue,⁷³ to chastise them for the refractory posture they had assumed. The result was that the territories of these two princes were added to the Empire in the year 111. The attention of the Chinese was diverted from the Heung-noo during these movements, and they had been comparatively free from any attacks by the latter. The return of leisure, however, reminded them of the necessity of vigilance in regard to their old enemies. Kung-sun Ho, the Master of the Horse, was put in charge of five thousand cavalry, with which force he advanced as far as the Fow-tseu Wells, more than two thousand *le* beyond Kew-yuen,⁷⁴ without meeting a single Heung-noo. Chaou Pono, the Marquis of Tsung-peaou, with a force of upwards of ten thousand horsemen went to the Heung-noo river, several thousand *le* beyond Ling-keu,⁷⁵ but returned without seeing any signs of the tribe.

Towards the close of the following year the Emperor, in mak-

⁷² Southern Yue comprised the province of Kwang-se, part of Kwang-tung, the island of Hae-nan and Cochin-China.

⁷³ Eastern Yue comprised the eastern part of Kwang-tung and the seaboard provinces of Fuh-keen and Che-keang.

⁷⁴ The present prefecture of Yu-lin, at the Great Wall. The city is in N. lat. 38 deg., 18 min., 08 sec.; E. long. 109 deg., 22 min., 30 sec.

⁷⁵ The commentary says one thousand *le*, which seems the more probable version.

⁷⁶ The present prefecture of Kan-chow in Kan-suh province. The city is in N. lat. 39 deg., 0 min., 40 sec.; E. long. 100 deg., 56 min.

ing the tour of the boundaries, arrived at Suh-fang, where he made a grand inspection of a hundred and eighty thousand cavalry. Having ascertained their military proficiency he sent the envoy Ko Keih to propose to the Shen-yu a meeting at the boundary. Arrived at the Heung-noo camp the Shen-yu sent formally to inquire his business. In a lowly posture and with humble address Ko replied that he would deliver his commission to the Shen-yu in person. Admitted to an audience Ko addressed the chieftain in the plainest terms to the following effect: "The head of the king of Southern Yue is at present suspended at the northern gate of the Chinese Empire. If the Shen-yu is disposed to measure arms with China, the Emperor is now at the head of his troops, and will wait his arrival at the boundary; but should your highness feel unequal to the challenge let me advise you without delay to bend your steps southward, and tender your allegiance to the Han. Why should you wander away to these desolate regions, and conceal yourself on the north of the sandy desert, perishing with cold in a land that can furnish neither water nor pasturage for your flocks and herds." At the conclusion of this address the Shen-yu was furious; he decapitated the guest-usher on the spot and detained Ko Keih. As a further degradation to the latter he transported him to the borders of the Northern Sea.⁷⁷ The Heung-noo did not deem it advisable at that time to attempt any further incursions on the Chinese borders, preferring to recruit the strength of their men and horses; while keeping up their efficiency by the practice of hunting and archery. Several times they sent envoys to China with plausible tales and fair words, requesting a treaty of peace. As a result of these applications Wang Woo was sent with special instructions to note their condition. Now it was a rule with the Heung-noo that unless an envoy would forego his national etiquette and have his face tattooed he could not be admitted into the grand tent of the Shen-yu. Wang Woo, who was a northern man, and well versed in Heung-noo customs, felt no scruple in complying with these conditions. Admitted into the grand tent he soon found his way into the good graces of the Shen-yu. The latter, during his intercourse with the Chinese, having learnt something of the art of dissimulation, sent Wang back with the false assurance that if they would consent to a treaty he would send his eldest son to the Chinese court as a hostage.

The Chinese were not indifferent to the above proposal, and in the course of the year 109 Yang Sin was sent on a mission to arrange with the Shen-yu about carrying it into effect. The course of events about this time was not such as to reassure the Heung-

⁷⁷ Lake Baikal.

nóo chief. The Chinese had just subjugated the kingdoms of Hwuy-mih⁷⁸ and Corea on the east, and annexed these territories to the empire, while they had established the region of Tsew-tseen⁷⁹ on the west, as a barrier against the incursions of the Hoo; and to afford facilities of intercourse with the Keang.⁸⁰ They had also opened up a caravan route to the kingdoms of the Massagetæ and Ta-hea.⁸¹ An imperial princess had moreover been bestowed upon the king of Woo-sun, one of the States subject to the Heung-nóo, from whom the Chinese intended to transfer the allegiance to themselves. As a further means of effecting this they erected a stockade at Heuen-luy, considerably to the north; while the Heung-nóo did not dare to offer any opposition. The same year Chaou Sin the Marquis of Heih died; and taking all these things into consideration the Chinese diplomatists, in view of the weakened condition of the Heung-nóo, thought it a favourable time to get them to accept the relation of a subject nation. Yang Sin was firm, straightforward, and one who would not be diverted from his purpose; but hitherto he had not filled any high official post. When the Shen-yu coolly ordered him to enter, the latter refused to forego his national etiquette, whereupon the chief sat down outside the grand tent to give him an audience. Yang Sin opened his commission by stating that China was willing to enter into a treaty on his proposed condition, that he should send his eldest son as a hostage. The Shen-yu replied:—"Treaties were not so made in other days. Formerly it was the custom for China to send an imperial princess, with presents of raw and wrought silk, besides comestibles of various descriptions as a token of amity; and the Heung-nóo on their part refrained from molesting the borders. But now it seems the ancient order is to be abandoned; and you wish me to send my eldest son as a hostage, without the hope of any equivalent. Besides, when China sends an envoy to the Heung-nóo they are accustomed to send a man of high rank." At this point the literary attendant was about to offer a remark, but the chief abruptly cut short all discussion,

⁷⁸ A country upon the eastern borders of Corea, to the north of the Chin-han and east of the Ma-han. The people spoke the same language as the Coreans, and were of the same origin, and same manners and laws. (Doolittle's "Vocabulary and Handbook," vol. ii, p. 203.)

⁷⁹ The present prefecture of Suh-chow in Kan-suh, of which the chief city is in N. lat. 39 deg., 45 min., 40 sec.; E. long. 99 deg., 07 min.

⁸⁰ Ugro-tataric tribes in Tangut. (Smith's "Vocabulary of Proper Names," etc., p. 19.)

⁸¹ A country more than 2000 *li* to the S. W. of Ta-yuen (Ta-wan), and identified by Biot with Bactria. This country was named after the Dahæ, a warlike tribe from the eastern shores of the Caspian, who invaded Bokhara and adjoining districts. (Smith's "Vocabulary of Proper Names," etc., p. 50.)

and the young man was terrified lest the chief should run him through. The Shen-yu continued:—"Whenever the Chinese troops have entered the Heung-noo territory, the latter have promptly sought reprisals for the injury. When the Chinese have retained the Heung-noo envoy, the Heung-noo have also retained the Chinese envoy, which is but a fair equivalent, and they desire no more on the present occasion." On the return of Yang Sin to China, reporting the ill success of his mission, Wang Woo was again despatched, to remind the Shen-yu of his promise. He was received by the latter with a profusion of fair words, intimating without disguise his desire for a good supply of Chinese objects, while the chief craftily observed to the envoy:—"It is my wish to go to China and have a personal interview with the Son of Heaven; thus to ratify the fraternal bond between us." When Wang Woo carried back this message to China a hotel of appropriate style was built for the reception of the Shen-yu in Chang-gan the metropolis. The Heung-noo chief, however, sent one of his nobles to China, and desired him to say that unless China sent an envoy of equal rank he would not discuss the question in earnest with him. While in the metropolis the Heung-noo envoy fell sick, and was put in the doctor's hands, but died under the medical treatment. Loo Ch'ung-kwo, stipendiary of 2,000 piculs, who wore the corresponding insignia, was appointed to escort the funeral home, with presents of thick silk to the value of several thousand taels. The Shen-yu declared the Chinese had killed the nobleman his envoy, and consequently detained Loo Ch'ung-kwo. It was now evident to the Chinese that the Shen-yu had been merely deluding Wang Woo with false pretences, and never had any idea of sending his son to China as a hostage.

After this the Heung-noo, on several occasions sent small parties of troops, to make incursions on the Chinese border. In view of these troubles, in the summer of 107, the Hoo-eradicating general Ko Chang and Chaou Po-noo the Marquis of Tso-ya, were commissioned to establish military colonies from Suh-fang eastward, to defend the borders against the Hoo raids.

In the autumn of 105 Woo-wei Shen-yu died, in the tenth year of his reign, leaving his son Woo-sze-loo a mere stripling, as his successor, who was always spoken of as the Boy Shen-yu. From this time the Heung-noo continued their migrations to the north-west. The left wing of their army was now in the meridian of Yun-chung, while the right wing was even with Tseu-tseuen and Tunhwang⁸². Soon after the accession of the Boy

⁸² Known in later times by the name of Kwa-chow. A district of the province to the south of Teen-shan. Latitude of chief place 40 deg., 15 min.; N. long. 93 deg., 50 min. E. (Doollittle's "Vocabulary and Handbook," vol. ii, p. 554.)

Shen-yu, China sent two envoys, one ostensibly to condole on the death of the Shen-yu, and the other on the death of the Right Sage prince; though in fact their mission had a more sinister object. On reaching the Heung-noo they were conveyed to the Shen-yu, who was enraged, and caused them to be detained. From first to last there had been more than ten Chinese envoys detained by the Heung-noo; and a similar number of the Heung-noo detained by the Chinese.

The year 104 was signalised by the celebrated expedition of the Urh-sze general Le Kwang-le to chastise the kingdom of Ta-wan⁸⁸. At the same time the Yin-yu general Kung-sun Gaou

⁸⁸ This country, which lies on both sides of the upper course of the Jaxartes, was visited by the Chinese Buddhist pilgrim Heuen-chwang in the seventh century, and noticed by him under the name of Fei-han or Ferghana, about a thousand *le* to the south of Tashkand. He says:—"It is surrounded by mountains on all sides. The soil is rich and fertile; it produces abundant harvests, and a profusion of flowers and fruits. The country is well adapted for rearing sheep and horses. The climate is cold and windy. The inhabitants are naturally firm and courageous; they have a peculiar language, and are physically of a low and ill-formed type." The oldest account we have of the country next to the Chinese, is by Ebn Haukal, an Arabian author of the tenth century, who says:—"Ferghaneh is the name of an ample and fertile province, which contains many towns and villages; the capital is called Akhsaket; it is situated on a level ground, on a river; and has a kohendiz, and suburbs and a castle, etc." (*"Oriental Geography,"* p. 270.) The province is now represented by the Khanate of Khokand.

Some explanatory details seem necessary to a right understanding of the importance of the movement here briefly alluded to. It may be remembered in the preceding narrative, the Yue-te or Gets, or rather the Massagetsæ, are spoken of as a flourishing nation in the third century before Christ, lying between the Chinese and Heung-noo on the west. These were the avowed enemies of the Heung-noo, and in the year 177, when the Right Sage prince was driven from his camp inside the bend of the Yellow river, he seems to have come into collision with the Massagetsæ. The following year the Shen-yu tells the emperor they had effected the complete reduction of the Massagetsæ, and that twenty-six adjacent kingdoms had all become subject to them. From another source we learn that the Heung-noo had killed the king of the Massagetsæ, and made a goblet of his skull. Unable to resist their oppressors, and burning with hatred against them, the bulk of the nation moved westward to the neighbourhood of the Caspian Sea in 139, where they may possibly have united with some kindred tribe, and effected a settlement after having driven the Dahs southward. These facts came to the knowledge of the Chinese, through some of the Heung-noo who had made their submission; and in order to renew their connection with the Massagetsæ, by which means to cripple the resources of the Heung-noo, the emperor Woo-tee conceived the idea of an embassy to the former in their new country, as a preliminary to a regular intercourse. The general Chang Keen offered himself for the service, with a hundred men to accompany him on the expedition; and this mission was one of the first acts of this illustrious reign. As the route lay partly through Heung-noo territory, Chang Keen and his companions were stopped and detained. After ten years, however, vigilance was somewhat relaxed, and the Chinese envoy managed to make his escape with his party. A toilsome journey of several tens of days brought them to the kingdom of Ta-wan, where they were cordially received, and assisted on their way to the Massagetsæ. Although the latter nation declined to acknowledge the supremacy of China, yet several of the kingdoms through which they had passed, had shown a readiness to throw off the

received a commission to build the Show-keang (*Surrender*) city. During the past winter the great rains and snow had been so severe in the Heung-noo country, that large numbers of the cattle had died from cold and starvation. The Boy Shen-yu, with the thoughtlessness of youth, took delight in killing and beating the people till a spirit of murmuring and insubordination became very prevalent. The Left Commandant General had formed a plot against the life of the Shen-yu, and with a view to put his plans into operation he secretly sent a messenger to China to signify his intention to kill the Shen-yu and then tender the allegiance of the nation to the empire of the Han. A difficulty that stood in the way, however, was the distance of the Heung-noo from China. "Let the army of the empire," he said, "come within a reasonable distance, and then we will openly proclaim our intention." On receiving this intimation of the state of feeling in the camp, the Chinese resolved to build the Surrender

Heung-noo yoke, on the understanding that they should be under the protection of China; and the token of their allegiance was to be perpetuated by the periodical transmission of tribute. Among the number of such kingdoms was Ta-wan, which was famed for an unequalled breed of horses; and the regular transmission of some of these to China was to be the evidence of their continued loyalty. On the return of the Chinese general, he was again detained for a year by the Heung-noo; but during the intestine troubles consequent on the death of Keun-shin, Shen-yu in 126, and the disputed succession, he got away without much trouble, and returned to China with only one out of the hundred who had set out with him twelve years before. Although he had failed in the ostensible object of the expedition—to get the Massagetae to submit to China—yet the amount of information he was able to collect, about the various nations through which he passed, turned out of the greatest advantage to China, and laid the foundation of that train of events, by which the power and authority of the Son of Heaven was acknowledged from the Korean peninsula to the banks of the Caspian.

One of the first fruits was the opening up of a regular caravan route from China across Central Asia. In the course of years, however, it appears the Heung-noo, by their greater proximity began to regain their influence; Ta-wan had omitted to forward the usual tribute of horses; the Chinese caravans yielded little or no profit; an Imperial envoy had been treated with indignity; and they had otherwise manifested a spirit of insubordination, to quell which the present expedition was set on foot. The preliminary arrangements had not been completed, when the sad reverses the Chinese had suffered at the hands of the Heung-noo led most of the Chinese statesmen to think it would be best to postpone the siege of Ta-wan till they had somewhat recuperated. Not so the emperor, however, who appears to have been the mainspring of the movement; for he remarked:—"If we cannot subjugate a small kingdom like Ta-wan, we shall lose the respect of the Dahse, and all nations of like standing; while the supply of Ta-wan horses will be at an end." In order to recruit the diminished force, it was determined—1st. To release all able-bodied prisoners; 2nd. To enlist all young and capable vagabonds of the empire; and 3rd. To employ the cavalry at the frontier stations. By this means they managed to get together an army of sixty thousand at Tun-hwang, besides the camp followers, with a hundred thousand oxen, thirty thousand horses, and considerably over ten thousand asses and camels as beasts of burden. With this force they commenced their journey, but before they reached Ta-wan, the troops were reduced to half the number.

city, outside the stockades, but still at a great distance from the Heung-noo camp, as an asylum for all those who should tender their submission.

Relying on the inducement held out by the Left Commandant General, Chaou Po noo the Marquis of Tso-ya left Suh-fang with twenty thousand cavalry in the spring of 103, and marched northward more than two thousand *le* to the appointed place of rendezvous at the Tseun-ke mountain⁶⁴. It was the intention of the Left Commandant General there to have made an open demonstration; but the Shen-yu, who had probably become aware of the plot before it was mature, had him put to death. The Heung-noo troops then advanced to meet the Marquis of Tso-ya; but several thousand of them were captured by the Chinese, who then turned their steps homeward. Ere they were yet within four hundred *le* of the Surrender City, however, they were surrounded by eight thousand Heung-noo cavalry. The Marquis of Tso-ya going out at night to search for water, was taken prisoner; and the Chinese, reduced to great straits, were unmercifully slaughtered by the Heung-noo. The Chinese now fearing that their leader was put to death, did not dare to think of returning; but electing a new commander, sought to maintain an independent position, and so were utterly cut to pieces by the enemy. The Shen-yu, highly elated with the result of this engagement, sent troops to attack the Surrender City; but being unsuccessful in that enterprise, they turned after making a raid on the Chinese frontier.

Next year, the Shen-yu headed an expedition in person to attack the Surrender City; but before reaching the place he was taken ill and died. The son of the boy Shen-yu being but an infant, he was succeeded in the chiefdom by his uncle Kow-le-hoo, the Right Sage prince, and younger brother of Woo-wei Shen-yu. On the accession of the new chief the Banqueting-house magnate Seu Tsze-wei was commissioned to raise a line of fortresses extending for several hundred *le* from the Woo-yuen stockade, and to build look-out towers along the road. At Lew-kee the extreme point, about a thousand *le* distant, the Guerrilla general Han Yue, and Wei-K'ang the Marquis of Chang-ping, were commissioned to establish a military colony; Loo Po-tih the Sturdy bowmen Commandant was commissioned

⁶⁴ According to one Chinese account, the Tseun-ke mountains lie north from Leang-chow; while another states that they are 2100 *le* north-west from Suh-fang. Guided by these indications, we find in the most recent Chinese Atlas, the "Hwang chaou chung wae yih tung yu t'oo," published at Woo-chang, about the place in question is a range named the O-ne-pih-keih mountains, about the head waters of the Selenga. D'Anville gives these by the Manchu name Hangai Alin. Possibly they may be the Annibie montes of Ptolemy.

to build a settlement on the Kew-yen lake.⁸⁵ In autumn the Heung-noo visited Yun-chung, Ting-seang, Woo-yuen and Suh-fang in vast numbers, when they killed and captured several thousands of the people, besides committing a great destruction of the grain. They destroyed the fortresses and look-out towers that had been built by Seu Tsze-wei. The Right Sage prince also invaded Tsew-tseuen and Chang-yih, capturing several thousands of the people; but he was attacked and repelled by Jin Wan, with the loss of all that he had previously gained. About the same time news was heard of the arrival of Le Kwang-le, who had been quite successful in his attack on Ta-wan. The king had been decapitated, the nobles submitted, and a large offering of horses had been presented. On his return with the remaining fragments of his army, the Shen-yu showed an inclination to bar his passage, but had not dared to do so.

In the winter of the following year Kow-le-hoo Shen-yu died of sickness after a reign of one year. He was succeeded by his younger brother Tseay-te-how. Now China, having just succeeded in humbling the kingdom of Ta-wan, and inspiring the various petty nations with a wholesome dread of its power, it appeared to the Emperor that then was the time to put forth a systematic effort to weaken the Hoo. Accordingly he issued a manifesto, in which was the following passage:—"My imperial ancestor Kaou has bequeathed to me the woes of Ping-ching⁸⁶. In the time of the Empress Kaou-how, the Shen-yu sent a most insolent letter.⁸⁷ Formerly Seang, the Duke of Tse, revenged an injury done to an ancestor nine generations past; for which he is commended in the *Ch'un-ts'ew*.⁸⁸ The attitude of China was not without its effect on the Heung-noo, who fearing reprisals, sent back Loo Ch'ung-kwo⁸⁹ and all the other Chinese

⁸⁵ A native commentator says this is 1530 *le* north-east of Chang-yih, or the present Kan-chow in Kan suh. Looking in that direction on the native map, we find a lake Sieh-ne-ha, with a river and mountain of the same name. D'Anville gives it the Mongol name Orec Nor.

⁸⁶ This refers to the ignominious imprisonment of Kaou-te at Ping-ching in B.C. 201, when he was surrounded, with his troops, by the Heung-noo army for seven days. The event seems to have rankled for generations in the breasts of the Chinese. (*Vide supra*.)

⁸⁷ This refers to the insulting epistle sent by Maou-tun to the ruling Empress, in the early part of the second century before Christ. (*Vide supra*.)

⁸⁸ This refers to an event in Chinese History. The Marquis of Ke having spread evil reports about the Lord of Tse, we read in the "Annals of the Bamboo Books," that in 892 B.C., "The king assembled the princes, and boiled the Duke Gae of Tse in a tripod." In 693 B.C. we find this injury revenged by Seang the descendant of Duke Gae, in the extinction of the state of Ke, through his continued oppression; the result as laconically stated in the "*Ch'un-ts'ew*" being that "The Marquis of Ke took a final farewell of his State." (See Legge's "*Shoo-king*," Prolegomena, p. 153. "*Ch'un-ts'ew*," p. 76.)

⁸⁹ The Chinese dignitary who had escorted the funeral of the Heung-noo envoy, in 109 B.C. (*Vide supra*.)

who had not submitted to the Heung-noo. The Shen-yu at the same time spoke of himself in terms of unwonted humility, saying:—"How could I, who am but as a child, dare to face the Son of Heaven? The Son of Heaven is one of a superior order of beings."

In the spring of the year 100, the Inner Gentleman-usher and General Soo Woo was despatched on a mission to the Shen-yu, with rich presents of silk and money. But he was altogether taken by surprise to find the chieftain more arrogant than ever, his conduct being marked by an unexampled hauteur. The same year, Chaou Poo-noo the Marquis of Tso-ya⁹⁰ managed to make his escape, and got back to China.

Still elated with the prestige of victories in the west, and having failed to humble the Heung-noo by threats, or to coax them by favours, the Chinese resolved to try the force of arms, where diplomacy had failed, and in the summer of 99 three detachments took the field against them. Le Kwang-le with a levy of thirty thousand cavalry, left Tsew-tseuen, to attack the camp of the Right Sage prince at the Teen-shan mountains. Over ten thousand of the enemy were killed on the occasion; but on their homeward march, the Chinese were surrounded by Heung-noo. Le made a hazardous escape, with a loss of six or seven tenths of his army. Kung-sun Gaou and the Sturdy bowmen General, Loo Po-tih, led an expedition from Ho-se as far as Cho-seay mountain, but with no result. The Cavalry Commandant Le Ling led five thousand infantry more than a thousand *le* north of Kew-yuen; when he met the army of the Shen-yu, and a battle ensued. More than ten thousand of the enemy fell before the Chinese; but the provisions of the latter being exhausted, Le Ling was about to return, when he found himself surrounded by the Shen-yu's troops. Driven to the last resource, Le tendered his allegiance to the Heung-noo; a miserable remnant of four hundred men was all that escaped of his splendid corps to return to their native land. The Shen-yu treated Le Ling with great distinction, and gave him his own daughter in marriage.

Notwithstanding the disastrous results of these expeditions, and apparently to retrieve their prestige, the Chinese planned a campaign on a much grander scale, and the troops began to take the field early in the year 97. Le Kwang-le left Suh-fang with sixty thousand cavalry and seventy thousand infantry; and was joined by a force of more than ten thousand, under the command of Loo Po-tih. Han Yue left Woo-yuen with thirty thousand infantry. When the Heung-noo heard of this gigantic

⁹⁰ Captured in the year 103 B.C. (*vide supra*).

military enterprise, they moved their families and portable effects to the north of the Too-woo river. The Shen-yu himself waited to receive Le on the south bank of the river, with a force ten thousand strong. They met and joined arms; but Le seems to have had the worst of the day, as he was fain to withdraw, and turned his face in the homeward direction. He was followed up by the Shen-yu, however, and for more than ten days they were engaged in a succession of battles. Han Yue did nothing. Kung-sun Gaou had an engagement with the Left Sage prince; but was unsuccessful, and withdrew his troops.

During the summer of 96, Tseay-te-how Shen-yu died, in the fifth year of his reign; leaving his eldest son, the Left Sage prince, to succeed him as Hoo-luh-koo Shen-yu. The old chief-tain had named him on his death-bed as his successor; but being absent at the time, the nobles of the nation believing he was sick, elected his brother the Left Great General to the dignity. The news of this occurrence reaching the Left Sage prince, he would not venture to come forward. His brother, however, sent a messenger to invite him to assume the position, which he was quite prepared to resign in his favour. The elder brother excused himself on the plea of sickness; but the other would accept no refusal, saying:—"Unless you transmit the succession to me at your death, I will not take it." The Left Sage prince then acceded, and appointed his brother to the dignity he had thereby vacated. The latter after a few years fell sick and died. His son Seen-heen-tan, however, did not succeed him in the title; but was made Jih-ch'uh prince, an inferior dignity. The Shen-yu made his own son the Left Sage prince.

For several years we hear of no aggressive movement on either side; but 90 was a year big with important events. The Heung-noo had made an incursion on Shang-kuh and Woo-yuen, killing and capturing officials and people. During the spring they made a second invasion of the commanderies of Woo-yuen and Tsew-tseuen. Le-Kwang-le then moved from Woo-yuen with seventy thousand troops. The Censor and Great Statesman, Shang Keu-ching, left Se-ho⁹¹ with more than thirty thousand troops. Mang Tung, the Marquis of Chung-ho, led forty thousand troops more than a thousand *le* beyond Tsew-tseuen. When the news of these preparations reached the ears of the Shen-yu, he removed his baggage to the station north of Chaou Sin's city at the Che-keu river. The Left Sage prince took his people six or seven hundred *le* beyond the Too-woo river, and stationed himself at Tow-yu mountain. The Shen-yu took

⁹¹ On the site of the present prefecture of Fan-chow, in Shan-se. The chief city is in N. lat. 37 deg., 19 min., 12 sec.; E. long. 111 deg., 41 min.

command of the *élite* of the troops in person. The Left Ganhow crossed the Koo-tseay river. The Chinese detachment under Shang Keu-ching went as far as the Chuy-seay Road, and turned without meeting any of the enemy. The Heung-noo then put more than thirty thousand cavalry under the command of a Great General and Le Ling⁹²; who pursued the Chinese army as far as Tseun-ke mountain. The latter then turned upon their pursuers, and a series of engagements ensued, lasting over nine days; during which there was an extraordinary number of killed, wounded and prisoners on both sides. On reaching the Poo-noo river, the Chinese were so embarrassed with their prisoners that they sent them back. When the Marquis of Chung-ho's troops got as far as the Teen-shan mountains, the Heung-noo sent the Great General Yeu Ken with the Right and Left Hoo-che princes, in charge of over twenty thousand cavalry, to look after the Chinese army; but not liking the formidable appearance of the Chinese forces, they deemed it prudent to withdraw; so that the Marquis of Chung-ho had neither success nor failure to report. About the same time, the Chinese fearing the Marquis of Chung-ho's detachment might be arrested by Ken-se troops⁹³ sent the Marquis of Ka'e-ling with a force in another direction, which surrounded and captured the Keu-se king with a great number of his people, and returned. When Le Kwang-le was about to leave the stockade, the Heung-noo had sent the Right and Left Commandants with Wei Leuh⁹⁴ in charge of five thousand cavalry, to attack the Chinese force as they were passing through the gorge in the Foo-yang-kow mountain. Le sent a body of two thousand subject Hoo cavalry to meet them, when a desperate encounter took place, in which the Heung-noo lost several hundred killed, wounded or dispersed. Taking advantage of this success, the Chinese troops pursued them north as far as Lady Fan's city; but the Heung-noo in their flight did not dare to turn on their opponents. About the same time the general Le was overwhelmed by consternation and grief, at the news that his wife and family had been judicially given up to capital punishment.⁹⁵ His servant Hoo A-foo who brought him the tidings, had been involved in the same con-

⁹² The Chinese general who tendered his allegiance to the Heung-noo, in 99 B.C. (*vide supra*).

⁹³ The Ouigours. They were divided into anterior and ulterior Ouigours, and occupied the country around Khamil and Toufan. Fifteen hundred families in 200 B.C. (Doolittle's "Handbook and Vocabulary," vol. ii, p. 205.)

⁹⁴ A Chinese officer who had given in his allegiance to the Heung-noo some years before.

⁹⁵ This had arisen out of the defection of Le-ling from the imperialist cause, who being a relative of Le-kwang-le, all the members of the family had become involved in the punishment.

demnation, and made his escape. He remarked to the general:—"Your wife and family are all in the hands of the officials. Should you return, you will not be able to affect the decision, and will only be immured in the same dungeon. May I meet you again on the north of the Che-keu river." Le now began shrewdly to suspect that his plan would be to make a very distant inroad into the enemy's country, in order to establish a singular reputation for himself. When he arrived at the Che-keu river, he had lost the traces of the enemy. He then sent the Protecting General with twenty thousand cavalry across the river. The first day they met the Left Sage prince and the Left Great general at the head of twenty thousand cavalry, when a battle took place, and the same day the Left Great general was killed and a very large number of the troops killed, wounded and captured by the Chinese. The Chief Historian of the army about that time sought an interview with the Keue-hwuy Commandant and the Marquis of Hwuy-keu, and observed to them confidentially:—"The general has some strange project in his mind. He is anxious to rush into danger for the sake of earning a reputation; so that I fear we shall certainly be lost." They then agreed together that it would be advisable to seize Le. The latter, however, hearing what was in the wind, beheaded the Chief Historian, and led his troops back as far as the Suh-seay-woo-yen-jen mountain. The Shen-yu, aware of the fatigued condition of the Chinese army, led forward fifty thousand cavalry, to obstruct and attack Le's troops, when the number of killed and wounded was enormous. At night the enemy dug a trench several feet deep in front of the Chinese army, and a furious onset was then made on their rear, which ended in the most helter-skelter confusion and complete defeat. The general Le gave in his allegiance to the Shen-yu; who knowing his reputation as a Chinese officer, gave him his own daughter in marriage, and received him with honours and favours even above Wei Leuh.

Next year the Shen-yu addressed a letter to the Chinese monarch in these terms:—"In the south is the great Han; in the north is the formidable Hoo. The Hoo is the haughty son of heaven, who does not trouble himself about petty formalities. Now I wish to form a durable bond of union, by taking to wife one of the daughters of China. My proposal is, that China shall transmit to me yearly, ten thousand piculs of wine, five thousand bushels of millet and rice, ten thousand pieces of silk of various kinds, and other objects as in former treaties; then I will guarantee the exemption of the borders of the empire from raids and robbery." On receipt of this epistle, the Chinese sent

an envoy back with the Heung-noo, bearing an answer. The drift of the Chinese missive is not recorded, but from the absence of all further notice of the matter, we may infer it was unfavourable. The Shen-yu seems to have taken a pleasure in setting those about him to twit the Chinese envoy. They would remark to him:—"China is a civilised and polished nation. But the general Le tells us that the heir-apparent lately raised troops in rebellion. Is that so?" To this the envoy replied:—"True! but that was a private quarrel between a Minister of State and the heir-apparent; when the latter called out troops to chastise him. The Minister having deceived the heir-apparent, was put to death by him. That was a case of the son making use of his father's troops, to subserve his own private purposes;—an offence certainly amenable to punishment. Still it was a venial crime, and not to be compared with that of Maou-tun, who with his own hand put his father to death, and set himself up in his place;⁶⁶ raising a concubine to the dignity of Lady Consort, conduct befitting birds and beasts." The feeling of the Shen-yu may be inferred from the fact that he detained this envoy three years.

Le Kwang-le had been more than a year with the Heung-noo, and the honours he was receiving proved very galling to the jealous spirit of Wei Leuh, when the consort of the chief happened to fall sick. Wei took this opportunity of privately instructing the Hoo augur to say:—"The late Shen-yu said with indignation,—The Hoo in former times were wont to sacrifice soldiers, constantly expressing the desire that they had a chance to offer up the Urh-sze General?"—Why is the deed not now accomplished?" The Urh-sze General Le was thereupon seized, but he reviled his calumniators, exclaiming:—"Should I be put to death, there will be an end to the Heung-noo." He was then cut to pieces, and offered up as a sacrifice. This deed was followed by an ominous combination of calamities—a continuous succession of rain and snow for several months, numbers of the animals died, there was an epidemic among the people, and the crops did not ripen. The Shen-yu was alarmed, and raised an expiatory chapel to the general. Immediately after the death of Le Kwang-le, the Chinese lost a Great general and several tens of thousands of soldiers, and they did not organise any fresh military enterprises.

In the beginning of the year 87, the Emperor Woo te died, and was succeeded by Chaou te.

For more than twenty years past, the Chinese troops had been pursuing the Heung noo, and had continued to follow them up far into their northern retreats; so that at the foaling season,

⁶⁶ *Vide supra.*

the mares and cattle had to drop their young by the way, and nearly the whole had perished; thus reducing the people to the extremest misery. From the Shen-yu downwards, there had been a general desire among all classes to have a treaty of peace; and about three years subsequent to this, when they had come to a determination to send a request to China, the Shen-yu fell sick and died, near the end of the year 85. Now the Shen-yu had a younger brother by a different mother, who was Left Great Commandant, and was very popular with the best men of the nation. The Lady Consort fearing the Shen-yu would supplant her son, by appointing the Left Great Commandant his successor, had secretly caused the latter to be assassinated. The uterine elder brother of the victim, resentful of this act of treachery, would never again make his appearance at the palace of the Shen-yu. When the chieftain was on his death-bed, he said to his nobles:—"My son being young, and unable to undertake the government of the nation, I appoint my younger brother the Right Luh-le prince as my successor." When the Shen-yu was dead Wei Leuh and others formed a plot with Chuen-keu the widow, to conceal the circumstances of the chieftain's death, and falsify his dying commands. She then bound the nobles by an oath, to raise her son the Left Luh-le prince to the succession, with the style of Hoo-yen-te Shen-yu.

On the accession of the new prince, it was rumoured that the Chinese envoy had expressed a desire for a treaty of peace to the Left Sage prince. The Right Luh-le prince, incensed that his claims to the succession had not been recognised, hoped to draw the mass of the people southward, and tender their allegiance to the Chinese. Apprehensive, however, that his influence might prove inadequate to such an enterprise, he endeavoured to enlist the service of the Loo-t'oo prince to aid him in concocting a plot with Woo-sun, (which had recently become subject to China,) to attack the Heung-noo. But the Loo-t'oo prince divulged the plot. The Shen-yu then sent a messenger to verify the fact of the non-submission of the Right Luh-le prince. The latter, however, reversing the facts of the case, laid the crime of disaffection to the charge of the Loo-t'oo prince, and said the people all accused him falsely. The two princes then retired to their respective locations, and would never join the national gatherings at the Dragon city.

In the autumn of 82 the Heung-noo made a raid on Tae, and killed the Commandant. The Shen-yu being very young at his accession, his mother took no care to rectify the affairs of the nation, always fearing an invasion by the Chinese. Wei Leuh therefore advised the Shen-yu to dig wells, build city walls, and prepare magazines for storing grain, placing them under the

protection of Tsin men; so that if the Chinese troops came, there would be no occasion for apprehension. Operations were set on foot for carrying out this programme; several hundred wells were sunk, and some thousands of trees cut down. It was the opinion of many, however, that the Hoo were incapable of defending a city; and that they were merely heaping up stores that would be left to the Chinese. Under this influence therefore, Wei Leuh stopped the operations.

During the year 81, it was decided to send back Soo Woo⁹⁷ Ma Hung and the other Chinese who had never given in their allegiance. Ma Hung was formerly second to the Banqueting-house Great statesman Wang Chung when he was sent on a mission to the countries in the West, and was stopped by the Heung-noo. Wang Chung was killed in the encounter, and Ma Hung was taken prisoner, but would never transfer his allegiance to his captors. Hence by sending back these two men to their country, it was thought the Heung-noo would inspire the Chinese with confidence in their good intentions.

Next year the Heung-noo sent twenty thousand cavalry from their right and left divisions, in four bands, which entered the Empire simultaneously on a marauding expedition. They were expelled however by the Chinese troops with a loss of nine thousand killed and captured, including the Gow-t'o (*Border*)⁹⁸ prince; while the Chinese loss was insignificant. The Heung-noo seeing that their Gow-t'o prince was taken captive, and fearing the Chinese might make use of his services to lead the way in an attack on them, removed still farther to the north-west, not daring to move southward for pasture and water; while they told off a detachment of their people, to form a colony on the southern border, to guard against surprises.

In the year 79, the Heung-noo sent south nine thousand cavalry, to establish a colony at Surrender city, to be a check on the Chinese; and made a bridge across the Too-woo river, to facilitate the passage in the event of refugees. Wei Leuh was now dead; but during his life, he had always spoken of the advantages of a treaty of peace. The Heung-noo had not been accustomed to put much confidence in anything he said; but since his death they had suffered intensely from the military operations, and the nation had become still more impoverished; so that the Shen-yu's younger brother, the Left Luh-le prince, called to mind what Wei Leuh used to say about a treaty; and

⁹⁷ It will be remembered this officer was sent on a mission to the Shen-yu in 100 a.c., with rich presents from the Emperor of China. (*Vide supra*.)

⁹⁸ It was the Heung-noo custom to skirt the borders of their territory with a line of mud hovels, called "gow-t'o" in their language. It devolved upon the occupants of these to give warning to the tribe of the approach of danger. The leader of this contingent was called the Gow-t'o prince.

would gladly have assented to one. But fearing the Chinese would not listen to the proposal, he was unwilling to be the first to broach the question openly. However he took care that the matter should be bruited in the hearing of the Chinese envoy. In the mean time their bandit incursions became much less frequent. They treated the Chinese envoy with greater liberality, wishing gradually to approach the question of a treaty; but the Chinese held them under firm restraint. Shortly after, the Left Luh-le prince died; and the Shen-yu sent the Le-han prince to reconnoitre on the borders. He reported Tsew-tseuen and Chang-yih as having the feeblest military defences. Troops were then sent to attempt an attack, in the hope of regaining that country. But the Chinese were informed of their plans by some of the Heung-noo who had submitted; and a manifesto was issued by the emperor, rousing those on the border to stand on the defence. Shortly afterwards the Right Sage prince and the Le-han prince, with four thousand cavalry, divided into three bands, entered Jih-lih, Uh-lan and Fan-ho; when the governor of Chang-yih and the Subject-nation Commandant attacked and completely routed them; only a few hundreds of their men being able to make their escape. One of the mounted troops of the E-k eu prince, a Colonel in the Subject-states contingent, shot the Le-han prince; for which service he was presented with two hundred pounds weight of gold, and two hundred horses, and had the title of Le-han prince conferred on him. The Subject-states Commandant, Ko Chung, was created Marquis of Ching-gan. After this the Heung-noo never again ventured to enter Chang-yih.

In the year 78 more than three thousand Heung-noo cavalry entered Woo-yuen, where they killed and captured several thousand people. Subsequently several tens of thousands of cavalry came southwards on a hunting expedition in the neighbourhood of the stockades; attacked the fortresses and look-out towers outside the stockades, and carried off the officials and people. At that time the beacon fires could be distinctly seen along the border regions of the empire; so that the Heung-noo got little advantage by their marauding incursions; and they seldom afterwards ventured on the stockades. The Chinese had recently received the submission of some of the Heung-noo, from whom they learned that the Woo-hwan⁹⁹ had desecrated the grave of a former Shen-yu; and the Heung-noo highly incensed

⁹⁹ In 209 B.C. Maou-tun scattered the Tung-hoo Shan-jung (*vide supra*) who divided themselves into two bands, one of which took refuge in the mountains called Woo-hwan, which is the country now occupied by the Mongol tribe, Arou-kortsin. (Doolittle's "Vocabulary and Handbook," vol. ii, p. 202.)

at the action, had sent twenty thousand cavalry to punish them for the offence. The Great general Ho Kwang, who conceived the idea of sending troops to intercept and attack them, asked the opinion of Chaou Ch'ung-kwo the Commandant of the protecting army, who replied:—"The Woo-hwan have of late frequently attacked the stockades; now if they are chastised by the Heung-noo, it will be the best thing possible for China. Besides the Heung-noo now rarely commit raids on the northern border, and we are happily free from disturbance. It is best to let the barbarians attack and destroy each other. By sending troops, to give it an importance, would be to invite raids and give rise to disturbance, a state of things by no means desirable." He next asked counsel of the Inner Gentleman usher and General Fan Ming-yeu, who approved of an attack on the belligerents. Fan himself was appointed Too-leaou general, and left Leaou-tung with twenty thousand cavalry, under his command. When the Heung-noo heard that the Chinese forces were in the field they retired. Ho Kwang had warned Fan not to advance at hap-hazard; but to wait till the Heung-noo had attacked the Hoo-hwan, and let the latter spend their fresh strength on the Heung-noo troops first.

Next year, after the Woo-hwan had been attacked and weakened by the Heung-noo, the Chinese made an attack on the Woo-hwan, killed more than six thousand, and returned with the heads of three of their princes. Fan was then created Marquis of Ping-ling. In view of these movements, the Heung-noo were very chary of again sending out troops. About the same time they sent an envoy to Woo-sun, to request the Chinese princess. This was followed by an attack on Woo-sun, in which they took the territory of Keu-yen-go-sze. The Woo-sun princess forwarded a letter to the Emperor, who handed it over to the dukes and ministers of state, to deliberate on sending succour; but before they had come to a decision, the Emperor Chaou-te died, and was succeeded by Seu-en-te.

On the accession of the new emperor, the Kwan-me (*King*) of Woo-sun again forwarded a dispatch to China, complaining that he had been several times invaded and plundered by the Heung-noo, and stating his desire to send the greater part of his best troops and fifty thousand horses, and to strain every nerve to chastise the Heung-noo. The emperor then decided to send troops for the succour of the princess.

In the year 72 there was a great levy of light and active recruits in Kwan-tung, and selected officials from the various states, with an emolument of three hundred piculs, well-matched and robust, skilled in equestrian archery, who were all attached to the army. The censor and great statesman, Teen Kwang-

ming, who was made Ke-leen (*Celestial*) general, advanced from Se-ho, with more than forty thousand cavalry. The Too-leaou (*Cross Leaou*) general, Fan Ming-yew, left Chang-yih with more than thirty thousand cavalry; the Van general, Han Tsang, left Yun-chung, with over thirty thousand cavalry; the Rear general, Chaou Ch'ung-kwo, who was made Poo-luy (*Reed*) general, left Tsew-tseuen with more than thirty thousand cavalry; the governor of Yun-chung Teen Shun, who was made Hoo-ya (*Tiger's teeth*) general, left Woo-yuen with over thirty thousand cavalry. Thus these five generals had under their command between one and two hundred thousand horsemen, and it was arranged that they should all advance above two thousand *le* beyond the stockades. Besides these, Chang Hwuy, the master controller, raised a protecting contingent. The Turki Kwan-me of Woo-sun took command in person of the Heih-how and their subordinates, more than fifty thousand cavalry, and advanced from the west; making, together with the companies of the five generals, altogether the enormous army of more than two hundred thousand troops.

As soon as the news of this extraordinary movement reached the Heung-noo in 71, they were seized with dismay, and lost no time in evading the impending danger. The aged and feeble without exception made a precipitate retreat, with their flocks and herds, far away into a remote region, where they might be safe from their pursuers. The result was that the five commanders had a comparatively poor account to render of their proceedings. The Too-leaou general went as far as the Poo-le-how river, more than twelve hundred *le* beyond the stockades; having killed and captured more than seven hundred of the enemy, and carried off more than two thousand horses, oxen and sheep. It was understood that the troops of the Poo-luy general were to meet those of Woo-sun, when the combined force should make an attack on the Heung-noo at Poo-luy lake.

The Woo-sun army reached the appointed place first, and left again before the Chinese troops came up, so that they did not meet. The Poo-luy general went more than eighteen hundred *le* beyond the stockades, some distance to the west of the How mountain, having killed and captured over three hundred, including the Shen-yu's envoy the Poo-yin prince, and his subordinates, and carried off more than seven thousand horses, sheep and oxen. It was reported that he returned with his capture, having never reached the appointed place of meeting; the emperor, however, condoned the offence, and did not visit him with any punishment. The Ke-leen general went as far as the Ke-chih mountains, sixteen hundred *le* beyond the stockades,

having killed and captured nineteen of the enemy, and taken over a hundred oxen, horses and sheep. He met the Chinese envoy to the Heung-noo, Yen Hung and his company, returning, who told him that, on the west of the Ke-chih mountains, there were a large number of the enemy. The general, however, enjoined on Yen Hung to say nothing about what he had told him, as he wished to return with his troops. Kung-sun Yih-show, an *attaché* of the censorate, remonstrated on the impropriety of his conduct; but the general would not listen, and returned with his troops. The Hoo-ya general got as far as the Tan-too-war river, more than eight hundred *le* beyond the stockades, but took his troops no farther, having reported as killed and captured over nineteen hundred people, with a booty of over seventy thousand horses, oxen and sheep. The emperor decided that the Hoo-ya general not having gone to the place appointed, had exaggerated the amount of his booty; and Ke-leen, knowing that the enemy were in front, had refused to advance, taking a circuitous route to avoid them. Both these were consequently handed over to the officials, and committed suicide. Kung-sun Yih-show was promoted to be censorate attendant. Chang Hwuy, the master controller, went with the Woo-sun troops to the right Luh-le's court, captured the Shen-yu's paternal relatives, sisters-in-law, princes next in rank, Le-han commandant, colonels, leaders, and subordinates, over thirty thousand in all, and took over seven hundred thousand horses, oxen, sheep, asses, mules, and camels; for this meritorious service Chang Hwuy was made Marquis of Chang-Lo. The above numbers do not, however, by any means, represent the losses of the Heung-noo, for a vast number of those who escaped were mortally wounded, and in removing their cattle to so great a distance, the numbers that perished were incalculable. Exhausted and reduced by this campaign, the Heung-noo were full of resentment against Woo-sun, as having been the immediate cause. The same winter the Shen-yu, with a cavalry force of several tens of thousands, made an attack on Woo-sun, and carried off a great number of the aged and feeble; but on the way home he was overtaken by such a violent storm of rain and snow—the snow falling to a depth of over ten feet in one day—and so heavy was the mortality among the people and the cattle from the cold, that not one in ten returned. Taking advantage of the enfeebled condition of the Heung-noo at that crisis, the Ting-ling attacked them on the north; the Woo-hwan advanced upon them from the east; while the Woo-sun attacked them on the west. By this threefold onset they lost several tens of thousands of people, and several tens of thousands of horses, besides a great number of oxen and sheep.

Still greater was the number of those who died from starvation; about three tenths of the people, and half of the beasts. Thus decimated and weakened, the Heung-noo became an object of coercion to every nation. They were scattered like loose tiles, attacked and robbed, without the power to resent it.

The following year the Chinese sent above three thousand cavalry, who advanced simultaneously upon the Heung-noo by three different roads, took several thousand prisoners and returned. The Heung-noo never afterwards dared to think of reprisals. They were now anxious to have a treaty of peace, and disturbances on the border became a thing of very rare occurrence.

In the year 68, Hoo-yen-te-Shen-yu died, after a reign of seventeen years, and was succeeded by his younger brother, Heu-leu-keuen-keu Shen-yu.

The first act of the new chief was to exalt the daughter of the Right Great general to the position of Lady Consort; and to degrade the Chuen-keu Consort, the favourite of the late Shen-yu; which was viewed with great indignation by the father of the Lady Chuen-keu, the Left Great Tseay-keu. The Heung-noo were not then in a position to make any raids on the borders of the empire. The Chinese therefore abandoned the occupation of the extra-mural cities; and the people enjoyed a cessation of hostilities for a time. The Shen-yu heard of this with much satisfaction, and called together his nobles to consult about a treaty of peace with China. But the Left great Tseay-keu, with the secret intention of subverting their counsel, said:—"Hitherto when China has sent an envoy, he has been soon followed up by an invasion. Now we ought to follow the example of China, and send an envoy previous to sending troops." He then proposed that he and the Hoo-loo-tsze prince should each take the command of ten thousand cavalry, go southwards on a hunting tour in the neighbourhood of the stockades, and enter the empire together. It happened, however, before they had reached the appointed place, that three of their cavalry fled and made their submission to the Chinese, informing them that it was the intention of the Heung-noo to make a raid. The Emperor thereupon issued a decree to have cavalry posted along the borders, and military colonies established in the most exposed places. A Great general, a Military inspector, a Mass leader and another officer were put in charge of five thousand cavalry, divided into three bands; each of which went several hundred *le* beyond the stockades, captured several tens of people and returned. The consequence thus resulting from the desertion of the three horsemen was, that the Heung-noo did not dare to enter, and withdrew their forces. This year there was a famine among the Heung-noo,

and six or seven-tenths of their people and animals died. They again established two military colonies, with ten thousand cavalry in each, as a defence against the Chinese. In autumn the prince and his subordinates, several thousand in all, of the Western Jō,¹⁰⁰ who had formerly been captured by the Heung-noo, and located on their left hand land, drove off their herds and had a battle with the (gow-to) "border guard," in which a vast number were killed and wounded. They then went south, and tendered their allegiance to China.

In the year 64, the cities of the Western regions made a combined attack on the Heung-noo, which resulted in the latter taking the kingdom of Keu-sze, and carrying captive the King and a multitude of the people. The Shen-yu then supplanted the King by his brother Tow-mo; and removed the remainder of the people to a more eastern locality, as he would not venture to leave them in the old country. The Chinese sent more troops to colonise the Keu-sze country, and bring it under cultivation.

During the year 63, the Heung-noo, indignant that the Keu-sze should have been simultaneously attacked by the different kingdoms, sent a Right and a Left Great general, with over ten thousand cavalry each, to colonise and cultivate their right hand lands; intending to invade and oppress Woo-sun and the Western regions.

Towards the end of the year 62, the Heung-noo sent a Right and a Left Yuh-keen, with six thousand cavalry each, and the Left Great general, to attack the city that the Chinese had built for the cultivation of the Keu-sze country; but they were unsuccessful.

The Ting-ling, who had been making plundering incursions on the Heung-noo for three years past, became still more audacious in 61; having killed and captured several thousands of the people and driven away their horses and cattle. The Heung-noo sent more than ten thousand cavalry to chastise them, but without any result.

Early in the year 60 the Shen-yu started on a hunting expedition, with considerably over a hundred thousand cavalry, to go southward in the neighbourhood of the stockades, intending to enter the borders on a grand raid. Before getting that distance, however, Ch'oo-keu-tang, a man of mark among his people, fled and submitted to the Chinese, giving them an account of how matters stood. The Chinese were suspicious of his statements; nevertheless they sent the Rear general Chaou Chung-kwo, in charge of more than forty thousand cavalry, to plant military

¹⁰⁰ The Jō were Ugro-Tartaric tribes allied to the Kiang (Smith's "Vocabulary of Proper Names," p. 16).

colonies along the borders of the nine regions, in order to guard against seizures.

After a little more than a month, the Shen-yu was attacked with vomiting of blood ; so that he returned without venturing to enter the empire, and military operations were consequently suspended. Too-le, Hoo-tsze and others, the most distinguished of the princes, were then sent on a mission to the Chinese court, to request a treaty of peace ; but before an answer was received the Shen-yu died, in the ninth year of his reign. At the outset of his career he had degraded the Chuen-keu Consort ; and the latter had carried on a secret intercourse with the Right Sage prince. This prince having absented himself from the gatherings at the Dragon city, the Chuen-keu Consort had kept him *au courant* in regard to state movements ; and now took care to inform him of the dangerous illness of the Shen-yu, that he might keep himself within convenient distance. A few days later, on the death of the Shen-yu the Ho-suh prince Hing-wei-yang sent messengers to assemble all the princes. Before they had arrived, however, the Lady Chuen-keu and her younger brother the Left Great Tseay-keu Too-lung-ke formed a plot, and set up the Right Sage prince, with the style of Uh-yen-k'eu-te Shen-yu. The latter had succeeded his father as Right Sage prince, being the great-grandson of Woo-wei Shen-yu. One of the first acts of the new chief was to renew the treaty with China. He sent his younger brother E-tsew-jö to represent him at the Chinese court with offerings. The commencement of his reign was signalised by a number of atrocities that augured ill for the future. He put to death Hing-wei-yang, and all the other nobles who had been in the service of Heu-leu-keunen-keu ; and put in a responsible office Too-lung-ke the younger brother of the Chuen-keu Consort. He further removed from positions of rank, all the children and near relatives of the late Shen-yu, and supplied their places by his own sons and brothers. Ke-how-shan the son of Heu-leu-keunen-keu, being thus excluded from the succession, left the court irate, and paid a visit to his father-in-law, the prince of Woo-shen-moo. This was the name of a small kingdom lying between Woo-sun and Sogdiana, which was frequently invaded and distressed by more powerful neighbours, till the king felt constrained to take his subjects, a few thousand in number, and tender his allegiance to the Heung-noo. Hoo-luh-koo Shen-yu had given the king his niece, the sister of the Gih-ch'uh prince, in marriage, and settled him with his people in the right hand land. The Left Sage prince, father of the Jih-ch'uh prince Seen-heen-tan was to have been Shen-yu, and ceded the dignity to Hoo-luh-koo Shen-yu, who promised him the succession ; hence the popular opinion was very freely expressed, that the Jih-ch'uh

prince ought to be the Shen-yu. The Jih-ch'uh prince, having formerly had a quarrel with Uh-yen-k'eu-te Shen-yu, he now took his adherents, several tens of thousands of cavalry, and tendered their submission to the Chinese. The Chinese created the Jih-ch'uh prince, Marquis of Kwei-tih. The Shen-yu then made his own relative, Po-seu-tang the Jih-ch'uh Prince.

The Shen-yu added to the measure of his iniquity in 59, by putting to death the two younger brothers of Seen-heen-tan; his heart was so envenomed by rage, that he refused to listen to the appeal of the prince of Woo-shen-moo who interceded on their behalf. Subsequently the Left Yuh-keen prince died, and the Shen-yu put his own little boy in his place. The other Yuh-keen prince and the nobles, however, unitedly chose the son of the deceased Yuh-keen prince as his successor, and all removed to the east with him. The Shen-yu sent the Right Minister of State with ten thousand cavalry to attack him, but the Minister was defeated with the loss of several thousand men. By the time the Shen-yu had been two years in power, his cruelties and oppression, in putting to death and punishing, had alienated the hearts of the nation; and his eldest son, the Left Sage prince, having several times reviled the nobles of the left-hand land, had succeeded in exciting a spirit of indignation against himself.

In addition to internal disquiet, the Heung-noo were attacked by the Woo-hwan on the eastern border in the early part of 58. The people were becoming much attached to the Koo-sie prince, at which the Shen-yu was greatly irritated. The prince apprehensive of results, united with the prince of Woo-shen-moo and the nobles of the left-hand land in setting up Ke-how shan, with the style Hoo-han-seay Shen-yu; and raised forty to fifty thousand left-hand land troops, who moved westward to attack Uh-yen-k'eu-te Shen-yu. They had reached the north side of the Koo-tseay river before an engagement took place; but when they met, the troops of Uh-yen-k'eu-te were utterly defeated and fled. The fallen chief sent to his brother, the Right Sage prince, saying:—"The Heung-noo have made a united attack on me, are you willing to assist me?" The Right Sage prince replied:—"He who has no love for his people, and puts to death his brothers and the nobles of the nation, must die in his own place. Do not come to harass me." Uh-yen-k'eu-te, full of rage, committed suicide, thus ending an inglorious reign of scarcely three years duration, by an ignominious death. The Left Great Tseay-keu Too-lung-ke fled to the Right Sage prince! and the people all testified their allegiance to Hoo-han-seay Shen-yu.

To be continued.

DISCUSSION.

MR. HYDE CLARKE said that Mr. Howorth had rendered a valuable

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service in obtaining a translation of these annals which would throw great light on the early history of the nomades. So far as he was aware, the earliest western evidence was in the few words of Scythian, given by Herodotus, and which he considered to be Manchoo.

The WESTERLY DRIFTING of NOMADES, from the FIFTH to the NINETEENTH CENTURY. By H. H. HOWORTH.—Part XII. The HUNS.

I HAVE NOW reached the termination of my journey. By your forbearance, I have been permitted to trace the gradual progress of the successive waves of nomadic invaders which have pressed upon eastern Europe since the fifth century; and have, I hope, thrown some light on a very confused subject, which is dry enough to repel most inquirers, and yet important enough to stand at the very threshold of all sound ethnological reasoning. It is a weakness with me, to believe that we can only approach the great problem of the origins of man by tracing his history back from the present to the earlier past; and the natural gateway to this long lane is, I believe, to be found in the revolutions of the Asiatic nomades, who have been the latest, as they are the typical, examples of one race displacing another. With this view, I have tried to trace back the Mongols, the Turks, and the pre-Turkish races to their ancient homes, and to unravel some of the crooked details of their affinities. Much remains to be done, for the subject is both very complicated and very large; but for the present, I have done with it in reaching the Huns. They form the first, as the Mongols do the last, of a series which has much in common, and whose story may be wrought into a continuous whole. I hope to take up the subject again at a future time, to correct many mistakes which are almost inevitable in such inquiries, and to carry back the story to the days of Herodotus; but in the meanwhile, I wish to work out the race revolutions among the Slaves, which have been much mistaken, and are closely connected with those of the nomades; and this subject will be treated of, with your permission, in the next series of papers.

The Huns have been the subjects of a great deal of controversy. Empirical answers, of very different kinds, have been given to the riddle of their race affinities; some connecting them with the Mongols, others with the Turks, others again, and the most influential, with the Ugrians; but a vast deal of matter still remains to be brought together about them, whose partial collection may, I hope, put the question of their affinities on a safer basis.

I have more than once observed that the *cul-de-sac* formed by

the Caucasus, the Caspian, and the Euxine, is a by-wash in which a great many of the nomadic invaders of eastern Europe have dropped some of their numbers; and we may hopefully approach that region in search of relics of tribes and races known elsewhere merely as historic names; and I believe this to be especially the case with the Huns. With this object I now propose to examine the pedigree of the Lesghian tribes. Trusting for my facts chiefly to Guldenstadt (*Beschreibung der Kaukasischen Länder*) and to Klaproth. The first thing that strikes one, in looking over the names of these tribes is, that one of them, and that the most important, is actually still called Avar; on proceeding further, we find that the Circassians give the Lesghian tribes the general name Hhannoatche (*i.e.* Huns), while the Georgians call those who are otherwise known as Avar, by the name Chundsach (*i.e.*, Huns, or Chunni). One of the Chiefs of the Lesghian princes is entitled "Avar Khan"; in Russian, "Avarskoi Khan." The same individual is called "Chundsakhis Batoui" by the Georgians. Again, the chief village of the "Avar" tribe is called "Chundsach"; in Turkish, "Avar," *vide* Guldenstadt, *op. cit.* I have already observed that *prima facie* it is probable that we should meet with some remains of the "Huns" in the great by-wash of the migrating flood of tribes that have passed over the Russian Steppe. It is not strange, therefore, that we should there, and there only, meet with tribes who still bear the name of "Avar" and "Hun," and who, therefore, have a *prima facie* right to be considered as the descendants of the ancient Huns. Klaproth, whom it is too much the fashion nowadays to abuse, and who, in spite of some mistakes, perhaps, did more than all other inquirers put together, to clear up the historical ethnography of Asia, first made a detailed examination of the traces of the "Huns" in the Caucasus. It had long been known that among the "Lesghians," there was a redoubtable tribe called the "Avars," whose chief was called "Avarkhan," and whose country was named "Chundsag." These names were startling enough to have attention called to them, as offering some evidence on the problem of Hunnic ethnology; but it was reserved for Klaproth to give them their due weight. The most brilliant and effective proof adduced by him was the following list of names, in which the names of the various Hunnic leaders are put side by side with those of names in common use now among the Lesghians.

Attila
Ould Ouldin
Boudak
Ellak
Dingitsik

Adilla, a very common man's name.
Ouldin, an "Avar" family.
Boudakh Sultan.
Ellak.
Dingatsik, a family name.

Eskam, daughter of Attila	Eska, a woman's name.
Balamir	Balamir.
Almus	Armus
Leel	Leel.
Tsolta	Solta.
Geysa	Gaissa.
Zarolta	Zarolta.

To those who are accustomed to ethnographic inquiries, this list of names is of itself almost conclusive; but it may be strengthened considerably by the examination of the few Hunnic words that have reached us. "In the Lesghi-Avar tongue," says Klaproth, "a river is called 'or, hor, ouor.'" Jornandes (chapter 52) says "Pars Hunnorum in fugam versa eas partes Scythiæ petiit quas Danubii amnis fluenta prætermeant quæ lingua sua Hunnivar appellant." I have always thought that this last sentence ought to be read thus: "quæ lingua sua Hunni Var appellant"; and my conjecture is amply confirmed by a MS. in the French Royal library, number 5873. It is of the 13th century, and on folio 31, we read thus: "q' lingua sua huni uar appellant." Thus we find the "Huns" giving the name of Uar or Var, to the river Danube: the river *par excellence*; while Var, or Or, is the very name for river among the Lesghian Avars. (See Klaproth, *Tableaux Historiques del Asie*, 245-6.) Among the Avars, "Til" meant black; "dir," which is only another form of the same word, has the same meaning among the Avarean Lesghi tribes of Antsukh and Tehar. "Vokolabras," meant "chief priest," among the old Avars. "Vokhula," means "chief" among the Lesghs of Antsukh. Among the names of Avar chiefs that have come down to us, those of Baian, Samur, Solakh, and Kokh are still in use among the Lesghi and Mitsdgeghi. (Klaproth, *op. cit.*, 268.) Among the ancient Bulgarians, the princes were styled "Boilad," which answers exactly to the Avar-Lesghi term for princes, which is, be-led. (Klaproth, *op. cit.*, 261.)

These proofs are conclusive, and suggest further questions. In a paper of this series, on the "Alans," I have tried to show that their descendants are to be traced in the Ingushes and Mitsdgeghi, whose language has some affinities with the Avarian and other tongues of Lesghistan; but that the latter has an additional foreign element. If Klaproth's contention be right, and also our own argument about the Ingushes, it would make the Alans and Huns more or less related, which, from what we know of them in ancient authors, is by no means improbable. Let us continue. The Lesghian tribes proper, have been divided according to their languages, by Guldenstadt and Klaproth, into four well marked divisions: first, the Avar, including the dialects of Anzug, Dshar, and Chunsag, which are in reality identical;

second, the Andi; third, the Dido; fourth, the Kazikumuk; and fifth, the Akush and Kubetchi. The two last divisions I should be disposed to class together. They differ considerably from Avar, and have a much closer affinity with the Ingushes. I shall say more about them presently. The Dido dialect is, I believe, chiefly marked, as we should expect from its position, by a large mixture of Georgian words. We have left the Avar and the Andi; Andi, I make to be a corruption of Hun; and I believe the Avars and Andi of the Caucasus represent very fairly the difference there was between the Huns and Avares of the old time. Generically classed as one by the ancients, as we class the Andi and Avares now under the generic term of Lesghs; but specifically showing considerable marks of difference. These marks of difference are of much interest and importance. For in examining the elaborate tables contained in the text of the "Asia Polyglotta," (page 133-137,) we shall find, that while the Andi dialect approximates very closely to the Ugrian or Finnic dialects proper, that the Avar has many idiosyncrasies related to the Samoyedic class of Siberian languages. I believe this peculiarity has not hitherto been noticed by any one. This distinction between Huns and Avars, is in remarkable agreement with the historical testimony; whereas we find a continuity in the history of the Huns, Bulgarians, and Hungarians. The Avars come in as a different element, having a separate history, and we find them fighting, not in alliance with, and as brothers of the other Hunnic tribes, but as rivals, and as masters. Let us now turn to the history of the Huns.

The history of the Huns is generally commenced with the notices of them contained in the narratives of Ammianus, Marcellinus, and Jornandes; but they were known in Europe at an earlier date. Ptolemy (A.D., 175-182) mentions the Chunni between the Bastarnæ and Roxolani, and places them on the Dnieper; but Schafarik suggests that this may be an interpolated passage. (See the *Slavische Alterthumer*, 1,322). Dionysius Periegetes, who wrote about 200, A.D., names them among the borderers of the Caspian in this order: Skyths, Huns, Caspiani, Albani. Eratosthenes (who wrote 238, B.C.), as quoted by Strabo, mentions the same tribes in the same order, only that Utii is substituted by the earlier author, for Huns in the later, which makes the narrative of Dionysius doubtful. (Schafarik, *Id.*) The Armenian historian, Moses of Chorene, relates that Tiridates the great, who reigned from 259 to 312, A.D. defeated the tribes of Daghestan, and pursued them to the land of Hunk, *i.e.*, of the Huns; and Zonaras reports a tradition that the emperor Carus, in the year 284, fell in an expedition against the Huns. It was in 374 or 5 that the Huns made their first really important ad-

vance into Europe. Jornandes tells us their leader was named Balamir, or, as some of the MSS. make it, Balamber. (Thierry, history of Attila, and his successors, 617.) Ammianus tells us that the Huns, being excited by an unrestrainable desire of plundering the possessions of others, went on ravaging and slaughtering all the nations in their neighbourhood, till they reached the Alani. (Amm. Mar., A.D., 580.) Having attacked and defeated them, they enlisted them in their service, and then proceeded to invade the empire of the Ostrogoths, or Grutungs, ruled over by Ermanric. Having been beaten in two encounters with them, Ermanric committed suicide. His son, Vithimar, continued the struggle; but was also defeated and killed in battle, and the Ostrogoths became subject to the Huns. The latter now marched on towards the Dniester, on which lived the Visigoths or Thervings. Athanaric, the king of the latter, took great precautions, but was nevertheless surprised by the Huns, who forded the river in the night, fell suddenly upon his camp, and utterly defeated him. He now attempted to raise a line of fortifications between the Pruth and the Danube, behind which to take shelter; but was abandoned by the greater portion of his subjects, who, under the command of Alavivus, crossed the Danube, and, by permission of Valens, settled in Thrace. The Huns now occupied the country vacated by the Goths; they succeeded, in fact, to the empire of Ermanric, and apparently subjected the various nations over whom he ruled. They did not disturb the Roman world by their invasions for fifty years, but contented themselves with overpowering the various tribes who lived north of the Danube, in Sarmatia and Germany. Many of them, in fact, entered the service of the Romans. Thus, in 405, one Uldin, a king of the Huns, assisted Honorius in his struggle against the Visigoths of Ladagasius, and decided by a rigorous charge of horse, the battle of Florence. He had already befriended Arcadius. During the regency of Placidia, sixty thousand Huns were in the Roman service (Thierry, *op. cit.*, 141). Meanwhile, although they did not attack Rome directly, the Huns were gradually forcing the tribes of Germany, the Suevi, the Vandals, Alans, etc., across the Rhine, and gradually pushing themselves along the valley of the Danube. In 407, they appeared under their chief, Octar, in the valley of the Rhine, and fought with the Burgundians on the Main (Thierry, 43). This Octar was the brother of Mundzikh, the father of Attila; there were two other brothers, Abarre, and Ruas, who divided between them the greater part of the Hunnic tribes. The latter became a notable sovereign, and has lost a reputation, as so many others have, by having a more fortunate successor. He was the friend of Etius. The emperor Theodosius the second, paid him an annual stipend of three hundred and

fifty pounds of gold, and created him a Roman general. This good feeling was disturbed by the Romans having given refuge to certain revolted Hunnic tribes, the Anuldsuri, Ithimari, Toulosuri, and Boisci (Priscus, cited by Thierry, *op. cit.*, 46); the same confederacy that, as I have already mentioned from Jordanes, was the first to cross the Mæotis. This quarrel led to the sending of envoys, who arrived after the death of Ruas, and were received by his nephews, Attila and Bleda, as is graphically described by Gibbon. The meeting was followed by the treaty of Margus. The two brothers now proceeded to conquer several tribes north of the Danube. They first subdued the Sorosgi, a tribe who are elsewhere mentioned by Priscus, with the Saragurs and Onagurs, and was probably Hunnic, or, perhaps, Alanic. In 448, Attila conquered the Akatziri, called Akatziri Unni, by Priscus, another Hunnic confederacy, on the Pontus, which afterwards revived under the name of Khazars. Having destroyed their chiefs, except one named Kuridakh, he placed his son Ellak in authority over them. He then proceeded to subdue the various Slavic and German tribes, that still remained independent; extending his conquests to the Baltick. I am not going to relate the long, and generally victorious, struggle which he carried on against Rome, which concluded with the terrible fight on the Catalannian fields. It has been told with spirit by Gibbon, and in profuse and exhaustive detail by Thierry, in his "History of Attila and his successors." Smith, in his notes to Gibbon, has tried, but, as I think, most ineffectually, to limit his empire, generally, to the valley of the Danube. It is, in fact, hard to say where his influence, and that of his followers, did not reach. Attila and his Huns are named in the Edda; and the Niebelungenlied, the epics of Scandinavia and Germany, and the rude monuments of North Holland and of Germany are still known as Hunnenbedden. The empire of the Huns was sustained by the strong hand of Attila. On his death, in 453, it began to fall in pieces; his sons began to quarrel, and Ardaric, the king of the Gepidæ, began the general revolt of the dependent nations. A great struggle ensued between the various German tribes and the Huns, allied with the Alans and Sarmatæ. It was fought out at Netad, where the latter were badly beaten; forty thousand of them were killed, including Ellak, the eldest son of Attila. His brothers, with the rest of the Huns, retired to the Steppes of the Black Sea, and the plains of Paunonia, or Hungary, while the Gepidæ occupied their deserted places in Dacia. In 456, the Huns, who had been recruiting their strength, once more crossed the Danube to attack the Ostrogoths, and were again beaten. They now split asunder; those who wished for freedom, retired with Denghizikh, a son of Attila, to the Steppes north of the Danube;

the rest, who were disposed to settle, submitted to the Romans, and under Hernak, another son of Attila, were allowed to occupy the country about the mouth of the Danube, called Little Scythia. (Thierry, *op. cit.*, 249 and 50). Candax, a chief of the Alans, also settled close by. He was, apparently, a dependent of the Huns, for when he was attacked by the Goths, we find Denghizikh marching from his camp on the Dnieper, to assist him. With him, went the Hunnic tribes of the Ulzingurs, Angiscires, Bitugores, and Bardores. (Thierry, *idem* 253.) The Ostrogoths marched against him, and for the third time, gave the Huns a terrible beating, and drove them across the Danube. In 466, the Huns, under a dependent leader, named Hormidak, crossed the Danube on the ice. This too was unfortunate. The Romans, under Anthemius, forced him to take refuge in Seidica, where he was forced to capitulate. (Sidonius Apollinarius, in Thierry, *op. cit.*, 254, etc.)

The Huns at this time were divided into two well-marked sections. The Huns proper, or Black Huns, in the west; and the White Huns, including the Acatziri Saraguri, etc., in the east. They were roughly divided, probably, by the Don. That both sections, although separately governed, treated each other as portions of one nation, we learn from a curious anecdote related by Priscus. The two brothers, Denghizikh and Hernak, were at issue as to the advisability of making war on the Romans. The latter was in favour of peace, because, as Priscus says, the Acatziri Saraguri, and the other Hunnic tribes, who lived by the Caucasus and the Caspian, were then engaged in a war with Persia; and that it would be folly to engage in two wars at once. I shall not trace out the details of the connection between these western Huns, and the provincials; how the Greeks took numbers of them into their service; appointed several of them to places of trust; affected Hunnic customs, and Hunnic dresses. (See Thierry, *op. cit.*, 1,271, etc.). This was the case with the Huns settled on the borders of the empire, under Hernak. Meanwhile, those on the Dniپر and the Steppes of the Black Sea became disintegrated by civil strife, and probably coalesced with the various tribes around. It was at this time, probably, the Seklers became the dominant tribe of one set of Slaves, the later Bohemians, while, perhaps, the Antæ (Andi?) may have been another Hunnic tribe who did the same in another area.

While the Western Black Huns were thus being dissipated, the Eastern Black Huns were consolidating a fresh power. We now find their main horde divided into two sections—the Kutrigurs and the Utigurs—respectively named from two brothers, the sons of one of their kings, who divided their allegiance between them. They were divided by the Don, the

Kuturgurs lived west of the Marshe of the Mæoter and the Uturgurs to the east of them. Procopius (de Bello Goth IV. 18, Zeuss Die Deutsche under der Nachbarstamme, page 713) has shown from the collocation of several authorities that Uturgur or Utigur and Unnugari are used as common synonyms for the same tribe. Again, the Unnugari are also called Unugunduri and Unungunduri. Now as some authors speak of Utigurs and Kuturgurs so we find Theophanes and Anastasius speaking of the Unnugunduri Bulgari and the Kotragi. (See Zeuss 719 note.) Constantine Porphyrogenitus in fact tells us that the original name of the Bulgarians was Unungunduri. (See St. Martin's essay on the Bulgarians, who says this name is merely a compound of Hun and Gundur, and compares it with the Burugundi mentioned by Agathias). Again, the great Bulgaria of the old authors is the same land as the country of the Unnugurs. For these reasons I am disposed to identify Utigur, Unnugur and Bulgar as synonyms of the same tribe, and this view is confirmed by the fact that the Bulgarians, when mentioned for the first time, *eo nomine*, are named as if they were old well-known borderers of the Roman Empire. (See Zeuss 710.) Whether the name Bulgar have the etymology argued for in the paper on the Bulgarians or not, it would seem to have been a new name adopted by the Utigurs or Unnugurs.

I have said that Utigurs and Kuturgurs formed originally one race, the general name of which was probably Ogor. It will be remembered that Priscus, in his narrative of the embassy sent by the Romans to the Turkish Khan Dizabulus, speaks of the great nations of the Ogors as living on the Volga. These Ogors were in fact the wave of population that followed immediately upon the Huns of Attila in their invasion of Europe, were in fact the second tide of Huns. We may now continue our historical survey. In 498 and 499, as I have already related in the history of the Bulgarians, the coalition of the tribes of Eastern Huns and Slaves who went by the name of Hunno Vendo Bulgari appeared on the Danube. I shall not retail their history again. At this period apparently Bulgari was the generic name for the Eastern Huns. Let us move on a few years, until about 548, when we find these Eastern Huns divided into the two rival and bitterly striving tribes of the Kutrigurs and Utigurs, the latter of whom more especially seem to have eventually adopted the synonym of Bulgarians. The mutual strife of the two tribes was reported to the Greek Emperor by the Goths of the Krimea, the Gothi Tetraxitæ, who wished him to take advantage of it. The Kotrigurs, who were the nearer of the two to the empire, had been for some time in receipt of an annual subsidy from the emperor. The latter now sent an

embassy to Sandilkh, the chief of the Utigurs, promising him the subsidy if he would attack the Kutrigurs. At first he objected, saying that although governed by different chiefs, they had the same language, the same dress, the same manners, and the same laws as his own people. (Menander quoted by Thierry *op. cit.*, 341.) But the craftily worded taunts of the envoys at length moved him, and he agreed to attack the rival tribe which was closely allied with the Gepedæ. Shortly after the Kutrigurs were savagely attacked by the Utigurs and the Goths and badly beaten, while a large portion of their best cavalry under Kiuialkh were away in Mæsia. The latter now made terms with the Romans, who allowed some of them to settle south of the Danube, while others set out to revenge themselves on the Utigurs. The consideration of the Romans for the Kutrigurs, so lately their enemies, drew from Sandilkh, the chief of the Utigurs, a well-worded letter full of signified reproof, which is given at length by Thierry *op. cit.* (348-351). Meanwhile the Utigurs and Kutrigurs continued their suicidal struggle in the steppes of the Euxine. This struggle ended after six years of fighting in the victory of the Kutrigurs, who now turned upon the Romans in revenge for their treacherous correspondence with their rivals, and to regain the annual stipend which had latterly been paid to the latter. The chief of the Kutrigurs was called Zabergan. Gibbon has described in sonorous phrases the victorious march of Zabergan and his followers through Thrace and Macedonia up to the very walls of Byzantium, and how the capital of the Eastern Empire was saved by the skill of the aged Belisarius. After suffering a defeat the Kutrigurs retired towards Thrace, and finding they were not hotly pursued, turned upon its towns, while they extemporised a fleet of very primitive war vessels, described by Agathias, which acted in concert with their army, and they were thus able to ravage the country with impunity, and to return home well laden with booty. When they arrived there they found that the Utigurs had taken advantage of their absence to inflict upon their homes a terrible assault, and thus the strife between the two tribes continued. But it was reaching its end, for both of them fell an easy prey to the Avars, who in 557 invaded Eastern Europe, and in whose empire they became incorporated. The arrival of the Avars put an end to the supremacy of the previous invaders. Sabirs, Sarselt, Hunnugars, Saragors, Akatziri, are all named among their victims, and all assisted in building up their empire. I have already detailed the proof that Avars and Huns were very near akin, and have also summarised the history of the latter until they were finally dispersed by Charlemagne. I shall not here repeat it. Long before their final dispersion their power had been confined to

the plains of modern Hungary and Moravia. In the East, the Hunnugars or Bulgars, under their great chief Chrobat or Chrovat, revolted in 630 and constituted a new Hunnic empire, namely that of the Bulgarians. Either from him or from some other Hunnic leader of the same name I believe the Croats of Croatia to be named, but this fact and many similar ones will best be discussed in some future papers on the Slaves. On the death of Chrobat his empire was divided among his five sons. Four of them emigrated westwards with their people, as I showed in my paper on the Bulgarians, the fifth alone, with his tribes, remained behind on the Volga in Great Bulgaria as it was called. There they continued to be known indifferently as Hunnugars and Bulgars. But the great migration left this remnant very weak, and enabled another Hunnic race which had for some time been under a cloud, namely the Khazars or Akatziri, to resuscitate the supremacy of the White Huns, and to found a new empire, that of the Khazars, to which the Black Huns, Hunnugari or Bulgarians of the Volga, became subject. When, in the year 888, a terrible civil war broke out among the Khazars, eight of their tribes were expelled, and under the generic name of Cabari joined their dependents the Hunnugari. Thierry (*op. cit.* 2,205) tells us that Cabari probably means sons of Caba or Khaba, a well known hero of Hungarian romance, who is made the son of Attila and of a Roman princess. Hungarian philologues derive the name from Kabar or Kobor—*i.e.*, Bohemian Nomade. Among the Cabari the most important tribe was apparently that of the Megeri or Magar, which eventually gave its name to the Hunnugars, or as they are generally known in history, the Hungarians. I have already devoted a paper of this series to their history. They were in fact a race of Black Huns led by a caste of White Huns.

The Khazars and Hungarians were respectively known to the Russians as White and Black Ogors. White and Black being probably here used in their Turkish and Eastern sense as synonyms for dominant and dependent. It was probably from this Khazarian tribe, Megere or Magyar, that the town of Magyar, whose ruins have been described in detail by so many writers, and which was situated in the open country north of the Caucasus, derived its name. I may add to what I said in the paper already cited about the Hungarians that the invasion of the Pannonian plain by the Hungarians in 883, under their Magyar leader Arpad, was only the final completion of a migration that had been in progress for some time. Klaproth, in his "*Tableaux Historiques de l'Asie*," page 278, cites a passage from the *Acta Sanctorum*, describing an inroad by the Hungarians (*Magna gens Hungarorum*) across the Danube in 750, when they advanced

into the Grisons, pillaged and destroyed the monastery of Desser-tina, founded by Saint Sigebert near the modern town of Dissentia on the Upper Rhine. He also mentions, without citing his authority, but evidently from some Byzantine author, how in 838 a numerous army of the Ouggroi came to the assistance of the Bulgarians in their struggle with the Macedonians; that these Ouggroi attacked the Macedonians and were beaten. (*Vide* Klaproth *op. cit.*, 278). In 862 the Ungri made an attack upon the dominions of Louis the German and pillaged his frontiers. These notices show that before the final march of the Magyars their Hungarian clients and subjects were already known on the Danube and the borders of the German empire.

I may also add that traces of the land of Lebidias, also referred to in the paper already quoted, are perhaps still to be found in Southern Russia. There is a town called Lebedin in the government of Kharkof, but as Lebed means swan in Russian this name may have no connection with the Lebedias. The statement of Constantine Porphyrogenitus that the fragment of the Khazars who broke away taught the Turks (*i.e.*, with him Hungarians) their language, while they also used the Turks' own language, is most consistent with the differences, and at the same time the many affinities there are between the Hungarian language and that of the Kazikumuk, whom we have identified as the descendants of the Khazars.

It seems clear from the accounts that Khazars and Bulgars were very nearly related, thus Niken, the Russian chronicler tells us the Chualisses (the Russian synonym of Khazars) and the Bulgarians were descended from Lot's two daughters. In the letter of the King of the Khazars to Khasdai, a Jew of Spain, Cozar and Bulgar are made brothers, both being named among the ten sons of Togarmah (D'Ohsson *les Peuples du Caucase*). The Arabic author, translated by Ouseley as Ibn Haukal, says expressly that the language of Bulgar and Khozr was the same. (*Vide* page 190.) Among the names of Bulgarian princes that have come down to us is Almus. This is the same name as that of the father of Arpad, the stem-father of the Hungarian house. Heten, a Bulgarian name, cited by Schafarik, 167, is the same as Ete, one of the companions of Arpad. While Bela, who occurs prominently, as I showed, in Hungarian history, is made by some the eponymus of the Bulgarians. Having thus traced out the history of the Huns proper, or Black Huns, till the invasion of the Avars we may now go further. East of these Black Huns lay the Saroguri, Sar-Agors or White Huns. Priscus tells us how the Avars fell upon the Sabirs, and they in turn upon the Sarogurs, who thereupon came to the Hunni Acatziri, and having fought many battles with them defeated

them and then sent an embassy to the Romans. (See Priscus *Excerpta de Legationibus*.) These Sarogurs are the White Huns so well known in the history of Persia, and on whom Vivien St. Martin has written such an exhaustive essay. I shall refer to them again presently when I treat of the Khazars, for after conquering them, as I have above named, the two tribes seem to have acted in concert if not actually coalesced. The Sarogurs were, I repeat, pushed on by the Sabiri, whose name occurs at an early date, for I believe it to be identical with the Serbi of Pliny, and Severi of Ptolemy, who are named among the tribes between the Caucasus and Volga. Before the Bulgarians became supreme in the countries north of the Caucasus, that post was filled by the Sabiri or Saviri. That the Sabiri were Huns is clear from the accounts of the Byzantine authors who tell us so in terms thus: "Unni quibus Saber appellatis." "Unni Saber vulgo nuncupati" (Theophanes c. 516-528, *Hist. Mis.*, etc., cited by Schafarik *Slavische Alterthumer* 1,331 note). Jornandes also makes the Saviri a great division of the Huns. Stephanus of Byzantium, speaks of "the Sapires, a people of the interior of the Pontic region now called Sabires." (Vivien St. Martin *Etudes Ethnographiques et Geographiques sub voce Sabirs*.) Priscus mentions them as living east of the Volga, and as having been among the first conquests of the Avars. In 515 they broke through the passes of the Caucasus and ravaged Armenia Cappadocia, Galatia, and Pontus, as far as Eucha, which they however failed to capture. Twelve years later Boarex, the widow of Balachus, who ruled at the foot of the Caucasus, and therefore most probably the chief of the Sabiri, sided with the Romans, while he sided with the Persians. (Schafarik *op. cit.*, 331.) In 531 they again plundered Armenia, Cilesia, and the Roman frontiers. Procopius places them beyond the Zikhs, i.e., in the lower basin of the Kuban towards the Mæotis. In 558 the arrival of the Avars put an end to their dominion. Some of them were driven into the Caucasus, whence the Romans a few years later transplanted them to the Cyrus or Kur (Menander cited by V. St. Martin *op. cit.*) Although no tribe of the name remains apparently in the Caucasus, yet the valley of Tchorokh, which is known to the Georgians as Sber, most probably preserves their name.

One portion of the Sabirs, as I have said, sought refuge in the Caucasus, but, as usual, another and probably a much larger section drifted westwards and settled on the Danube. A body of these Sabirs of the Danube served in the army of Heraclius against Chosroes in A.D. 622. Said Ibn Batrik calls them Saouariah. (Schafarik *op. cit.*, 1,332 note.) These Sabirs of the Danube now fell under the dominion of the Bulgarians, and

with them passed into Mæsia in 678. Theophanes tells us that they then settled on the coast between the Hæmus and the Danube. The word Sabir or Sebi became equivalent in Bulgarian to *rusticus*, peasant, or cultivator, and is still known in Dalmatia and Servia as Sebar, sibor, cipor, etc. (Schafarik, *op. cit.* 332.) I believe the Slavic nation of the Serbs were named from them as their neighbours the Slavic Bulgarians, were named from the Hunnic Bulgarians. With the Saviri and Saroguri are sometimes mentioned the Sarselt. It has been suggested that this is a mis-reading for Barselt, a Hunnic tribe placed by Theophylactus on the Volga. Barselt is in fact Barzilian, a tribe closely allied to the Khazars; thus Moses, of Chorene mentions Venaseb and Sourhag as kings of the Khazars and Bazeleens. Bizal, a corruption of the same name, is named as one of the brothers of Khazar the eponymous ancestor of the Khazars, mentioned in the well-known letter of the king of the Khazars to the Jew Khasdai. The Khazars are also said to have come from the land of Bezelia, when they invaded the west. All these tribes, Sabirs, Saroguri, Sarselt and Khazars formed one class, for which, as I have said, the name White Huns is a good generic name. In regard to the Khazars I wish to withdraw a theory I formerly entertained, which led me to identify them in a paper of this series with the Circassians. Our science is so difficult, and our results very often so tentative, that it prevents our feeling very sad at having to modify our views after increased study. Mrs. Guthrie surely, *facile princeps* among learned lady travellers, in her account of the Crimea has the following sentence: "The Byzantine writers mention a Tsherkessian prince who landed at Caffa with a number of Kesses his subjects, and took possession of this city, although they do not tell us when, but this event, loosely as it is stated, becomes interesting by its perfect coincidence with the account the present princes of Circassia (as Europeans pronounce the word) give of themselves, who say they are descended from a prince named Kess, who anciently reigned in the Taurida. The Cuban Circassians, according to this pedigree, are sprung as they assert, from the eldest son of the Tauri prince called Inal, while the Cabardian Circassians boast their descent from his second son Chaombek, that is to say that the present chiefs or princes of these two countries in the Caucasian mountains claim this origin, not the people at large, a piece of curious information which I owe to Mr. Ellis' excellent memoir accompanying his valuable map of the Caucasus." (Guthrie, *op. cit.*, 146.) Klapproth tells us that he gathered from verbal communications with Circassian chiefs, that their progenitor was called Arab Khan, an Arab prince who came with a small retinue from his native land to

Shantschir, a town long since destroyed, which was situated not far from Anapa, in the country of the Nautuchasch, and whence the princes of the Temirgoi and all the Tcherkessians, according to their own accounts, derive their extraction. ("Travels in the Caucasus," English translation, 312.) This account agrees with that of Mrs. Guthrie, except in the name, in which she is doubtless mistaken. Klaproth goes on to say that Arab Khan was succeeded by his son Churpataga, who left a son named Inal, surnamed Nef or the squinter, and who is regarded by the princes of both Kabardahs as their progenitor. He also very properly doubts the notion of their princes having come from Arabia, although he says their progenitor may have been named Arab Khan. (*Id.* 313.)

Again Pallas, in his travels in the Southern provinces of Russia, (English translation 1,392) says: "The Kabardines consider themselves as descendants of the Arabs, and it is not improbable that they are the remains of those armies which were formerly sent to the Caucasus by the Caliphs; according to others they are the descendants of the Mamelukes. . . . It deserves to be remarked that the families of the Circassian princes considered Inal as their common ancestor, and described him as a mighty Khan, whose former residence was the city of Shantgir, now in ruins, between the rivulets Nepil and Psif. From this Inal, the princes of the Great and Little Kabarda derive their genealogy in the following manner." Then follows the genealogy. Thus these three authors are at one in reporting the traditional origin of the Circassians. In recently reading the "Travels in the Western Caucasus," by Mr. Spencer, who lived a long time among the Circassians, and who probably knew them more intimately than any modern traveller, I found a passage which corroborates these accounts and to my mind fully explains them. This account I cheerfully adopt. "The Circassian or Mameluke dynasty in Egypt lasted from 1300 to 1517. Among these Mameluke rulers we find in 1453 one who bore the name of Inal, and it appears was not the son but relative of Arab Khan. This chief, instead of being of Arabian descent, was in reality a Mameluke Khan of a powerful tribe of Arabs, and known in history as Arab Khan from the bravery of himself and his followers; his influence became so formidable that he made an attempt to seize the reins of sovereign authority and rule all Egypt; but not succeeding, he was compelled to fly, and escaped with his principal adherents to the country of his ancestors, where, having formed a settlement between the Kuban and Anapa on the Black Sea, he had built a large town. The site is still pointed out on the banks of the Uefil, and seems to have been regularly fortified with ramparts, moat, and several forts,

which now appear like small hills descending to the marshes of the River Kuban." (Spencer, *op. cit.*, 1, 12 and 13.) Having thus traced out the stem father of the various Circassian princes, both those of Circassian proper and of the two Kabardas, we may proceed. The primitive seat of the whole race is the cluster of mountains known as the Beshtau, and, as I mentioned from Klaproth, in my paper on the Khazars, it was only in the sixteenth century that they migrated in large numbers to the two Kabardas. This was due, probably, partially to internal commotions, but more to the encroaching spirit of the Krim Khans. On the arrival of Arab Khan and his family the power of the Golden Horde had decayed, was at a very low ebb, and the warlike Mameluke princes had little difficulty in extending their influence over the neighbouring Tschetchenzes, the Abkhazians, and the various Tartars of the mountains, the Basians, Kharatshai, etc. But at length the power of the Golden Horde partially revived among the Krim Khans. The Circassians now began to feel their power and to become more or less subject to them. It was probably under the influence of this pressure that the migration of the Kabardians began, as I mentioned in the already cited account of the Khazars, and continued long after.

This migration of the Circassians into the Kabardas is therefore quite recent. Now Ichoshaphat Barbaro, who travelled in the Caucasus in 1474, and therefore before this migration, applies the name Kabarda to the district still known as Kabarda. Again Kabarda is not known as a tribal or generic appellation, so far as I know, to the Kabardians themselves, who, like the other Circassians, call themselves Adighé. They are called Kabardians, as the English are called Britons, because they live in the Kabarda. They were not known by that name until the sixteenth century, and therefore, as I have said, I must cancel their identification with the Kazarian Kabari, which I formerly favoured.

Let us next inquire who inhabited the two Kabardas before the advent of the Circassians in the sixteenth century. To this question the answer is not difficult. In the slate and limestone ranges near the sources of the rivers Kuban, Baksan, Tschegem, Naltschik, Tscherek, and Argudan, are certain Turkish tribes who are called by the Circassians Tata Kushha, but by the Georgians Basiani. (Klaproth, "Journey to the Caucasus," 280.) Under that name are included the Balkars and Tchegems.

Further inland towards the south-west is another tribe of Turks named Karatshai. They live dispersed at the north foot of the Elburg, on the rivers Chursuk, Kuban, and Teberde.

Klaproth has examined the traditions and customs of these

mountain Turks in great detail. Of the Basians he says: "Their elders report that they were long ago settled in the steppe of the Kuma as far as the Don, but at what particular time they are unable to state. Their capital, which is said to have been very magnificent, was named Kirk Madshar, which in their language signifies the forty stone buildings or the forty four-wheeled waggons, according to the two-fold interpretation that may be given to Madshar. They assert that the ruins of Madshar, which yet subsist, are the remains of this city. Here reigned several of their princes who, at the commencement of the Hidjira, lived at constant enmity with their neighbours, and were at length expelled by them, on which they retired to the great Kabardah, whence they were in the sequel driven by the Circassians, and being divided into detached bodies, were necessitated to fix their habitations on the highest mountains at the sources of the Kuban, Baksan, and Tschegem. One portion of them, however, still continued on the Malka, and did not remove till a later period to the source of the Tscherek, whence it yet retains the name of Malkar or Balkar." (*Klaproth, op. cit.*, 281.)

In regard to the Karatshai he says: "They assert that they removed from Madshar to the district which they at present inhabit, before the Circassians came to the Kabardah, and derive their name of Karatshai from the chieftain under whose conduct they settled on the Kuban. . . . Their two principal villages are Karatshai, at the influx of the Chursuk into the right of the Kuban, which contains about 250 houses and another of about 50 houses, situated to the west of the Upper Kuban on the little river Teherde. The latter is of recent date, having been founded by refugees from Karatshai, who quitted the principal village for fear of the incursions of the Kabardians." (*Id. op. cit.*, 284.) These two paragraphs, which may be confirmed from other authorities, will suffice to show that the Steppe of the Kuma, the Kumestan of the old authors, was comparatively recently occupied by the Basians and Karatshai. When these two tribes were driven to the south-west it is reasonable to suppose that others of the same race would be pushed into the champagne country that lies between the Caspian and the Caucasus, and we do in fact meet here with Turkish tribes whose rulers were long the paramount lords of Daghestan, who were styled by the Arab travellers Kumuks, and who are now divided into two branches, the Kumuks and the Kaitaks, to be carefully distinguished from the Kazekumuks and Karakaitahs, the latter Lesghian and not Turkish tribes of whom I shall have more to say presently. Both Kumuks and Kaitaks occur frequently in the history of Shirvaman, of Russia

and of Turkey, the sovereign of the former was styled the Schemkhal, that of the latter the Usmei.

In regard to the Kaitaks, who are much inferior in numbers and power to the Kumuks, I believe that they are a comparatively recent split from them. Their name, so far as I know, does not occur in the pages of the older Arabic writers. I believe it to be like many other tribal names among the Nomades, derived from some chieftain's or some clan's name. In confirmation of this I may mention that one of the princely houses among the Circassians is called Kaituck (Klaproth, *op. cit.*, 281), and Reinegg constantly treats the name Khaitak or Kaitak as modern, and says that the district of Kaitak was anciently known as the principality of Saul.

When the Mongols founded the Khanate of the Golden Horde, they drove the Comans out of Kumestan, some of them into the hills to the south-west, others into the Krim, others again into Chundary, in Hungary, and lastly drove others into the country now occupied by the Kumuks and Kaitaks. All these fragmentary Turks, I believe, were portions of the ancient Comans or Uzes, about whom I have written a paper in this series.

Klaproth investigated with some care the relationship of the many men's names that occur in the Russian chronicles as leaders of the Comans. He avers, in the first instance, that they are not Nogai names, and infers that although the language and blood of the Comans were undoubtedly Turkish, that their leaders were not so. In this I followed him. I am now disposed to question this conclusion. The fact is the names of nearly all the Turks that are easily accessible to us, names patronised by Ottomans, by Krim Tartars, and by Nogais are derived from the Koran. They are in fact merely Arabic and Mussulman names, and not Turkish at all. If we are to look for unsophisticated Turk names they are not easy to find. I believe the Coman names preserved by the Russian chroniclers are in fact pure Turk names, for we know from the history of the Golden Horde that it was only under Bereke and Uzbek that the Turks of Kiptchak adopted Islamism in any numbers. Klaproth acknowledges that three of those names are commonly known as family names among the Karatshi. Pallas says they are found among the Balkarians and Karguutzi—*i.e.*, Karatshi; while as to the numerous instances quoted by Klaproth of their use among the Circassians, I believe that like the other northern Caucasian tribes the Circassians were subject to the Comans or Uzes, and that it is to this connection that the tradition chiefly refers when it makes the princes and commonalty among the Circassians have a different origin.

Let us continue, we have traced up the various sporadic Turks

of the Northern Caucasus to the Comans. Now the history of the migration of the Comans or Uzes across the Volga is well known, and I have detailed it in my paper on the Comans. We know that when they so crossed the river they invaded the country of the Khazars and partially dispossessed them.

When the Arabs invaded the Caucasus they apparently gave the name of Kumuk to the tribe that occupied the seaboard between the Caucasus and the Caspian. As I have said, the name Kaitak was not then known in this area, while Kara-Kaitak, which probably like Kara-Tcherkess, simply means in Eastern phrase the dependent or subject Kaitaks, was not known either. That name is now applied to those Lesghs who are dependent on the Uzmei of the Kaitaks. Now as Kaitaks and Kumuks are essentially the same tribe, so the Kara-Kaitaks and Kaze-Kumuk are also the same. Their dialect or language is the same according to the best reports, and I have no doubt that when the Turks were gradually pushed south of the Terek that these two tribes were one, as Reineggs suggests, and the common name by which they were known to the Arabs was Kumuk. When they conquered and converted a portion of these Kumuks they styled them Kaze-Kumuks, or believing Kumuks, while the unconverted were styled Kiafir Kumuks. So that in the Kaze-Kumuks we have to a great extent the representatives of the ancient Western borderers of the Caspian.

This same border land of the Caspian was the great focus of the Khazars, from whom the Caspian received the name of the sea of the Khazars. Schems ud Din, of Damascus, mentions four towns in the country of the Khazars, namely, Itil, Semender, Balandjar, and Khamlidge. ("D'Ohsson les peuples du Caucase," 33 note.) Itil, which I described in the paper on the Khazars, was on the Volga, and was probably replaced by Astrakhan. Semender, was the later Tarku, the capital of the Kumuks, and the residence of the Shamkal. (Reineggs, 1, 104.) Again, Derbend was a possession of the Khazars, and from it they seem to have organised their many raids upon Armenia. They were driven thence by the Arabs. (Reineggs, id. 133.) It was once called Serir el Dheneb (Reineggs, id. 201). The part of Daghestan lying north-west of Derbend and the province of Kumuk, with the greatest part of North Western Caucasus, appear to have belonged to the Khazars, whose possessions extended a considerable way in the plains near the Sea of Azof, and nearly as far as the Euxine. (Reineggs, 101 and 2.) One of the extraordinary facts in Khazar history is that their reigning house was Jewish, and that a great number of Jews were found among them; this is still the case with the strip of country bordering the Caspian, the homeland of the Kaze-Kumuks, so

much so that a work has been written to prove that these Jews are the remnants of the ten tribes. All these facts seem to point to the conclusion that the Kaze-Kumuks are the descendants of the Khazars.

I have now examined the three great divisions of the Hunnic race, the Black Huns or Huns proper, the White Huns, and the Avars. I have tried to show that each of these divisions left a portion of itself in the Northern Caucasus, the Andi being the descendants of the Huns proper, the Kaze-Kumuks, Akutchis, and Kubetchis, of the White Huns and the Lesghian Avars of the Avars. All of these Lesghian tribes have a large common element in their languages, and this common element has great affinity with the Ugrian tongues. It remains to add another link to our chain of proof. We have made the Hungarians no less than the Andi to be descendants of the Huns, the former being a race of Huns led by a caste of White Huns, the latter being Huns simply. Hungarian, as is well known, is a typical example of one section of the Ugrian tongues. This being so, we ought to meet in Hungarian with a ready linguistic test to apply to Hunnic names, etc. This test has been applied by Klaproth, and I again extract his results.

HUNNIC NAMES.

Attilas or etzel.

Mouzdionk Moutsak, father of Attila.

Ernak, son of Attila.

Deggitzik, son of Attila.

Edekon, grand officer of Attila's court.

Oktar, uncle of Attila.

Sandil, prince of the Uturgurs.

Kinialos, prince of the Kuturgurs.

Sinnion.

Zabergan.

Balas.

Kurilakos.

Balak.

HUNGARIAN.

Atzel, steel; edzeni, to temper iron; edozriz, water in which iron is tempered.

Mentség, protection, deliverance.

Hir-nagy, great glory.

Tenyészes, fertility; tenyézem, I reproduce.

Etek, food.

Oktatom, I instruct or teach.

Sandal, one who squints; sanditani, to squint.

Kinalas, offer invitation.

Szinni, coloured.

Zavar, a bolt, a lock; zavaritom (i.e., méle?)

Bal, a bundle; valasz, judgment.

Korül, lazy, indulgent to those about one (circum indulgens).

Balog, left (as distinguished from right).

A Hunnic word that occurs in Faustus Byzantinus, an Armenian author of the fourth century, is Vadon, a steppe. M. Szabo tells us the same word with the same meaning is still found in Hungarian. (Thierry, 1,243, note.)

In conclusion, to sum up our facts, it would seem that the White Huns were the first of the race to appear on the Eastern borders of Europe. If the Akattiri and Basilies of Herodotus are to be identified with the Akatziri or Khazars and the Berzelians of later writers,

they must have been old occupants of the Caspian borders. At all events we know that Serbi are mentioned by Pliny, and Severi by Ptolemy, while the Akatziri are several times named by the Roman writers before we have any mention of Huns. As these white Huns were the first of the invading Hun army, we are not surprised to find that those who represent them are much sophisticated by mixture with other tribes, nor are we surprised to find that this mixture should be with the Mitsgeghi and other tribes whom we have elsewhere identified with the Alans, the Nomades who immediately preceded the Huns.

They were succeeded by the Black Huns, much more purely Hun in blood, and as we find in their descendants much more Ugrian in language. They in turn were succeeded by the Avars, who added to their Ugrian features others of a Samoyede character. Now if we strip the country stretching from the Volga to the Altai mountains of its Turkish inhabitants, as we may well do, for we have evidence already adduced in this series of papers *that the Turks first left their homeland in the Altai about the fifth century*—if we so strip it we shall have a vast area from which these Hunnic tribes undoubtedly sprang—an area called Ibir Sibir by the Arabs, and so called, as Vivian St. Martin has argued, and as I believe, from the Avars and Sabirs. From this area they were driven by the gradual Western pressure of the Turks, and they in turn drove the Alans further into the West. They were in fact the pre-Turkish frontagers both of Persia and of Eastern Europe. In a paper on the Avars I have already adduced the evidence for making the Juan Juan of the Chinese authors the same race as the Huns and Avars of the West. I have already referred to the very large Ugrian element there was among the Huns, as there still is among their descendants, but neither were pure Ugrians. It seems incredible that a race such as the Voguls or Ostiaks, the typical Ugrians of our own day, should have conquered the Goths and other hardy and warlike Germanic tribes, and even joined arms upon equal terms with the Roman empire itself. Nor do I believe they could have done so if they had not been led by a caste of warriors of a different race, and we accordingly find that, although a large portion of the blood and language of the Huns was Ugrian, there was super-imposed on this an element which was not Ugrian, this I believe was Alanic. That in fact the Ugrians were led by a caste of Alans, and that this caste is what the Byzantine authors refer to when they tell us that of the princes of the Avars some were Var and some were Chunni. The Alans were the great leavening caste of nearly all the tribes which were mixed up in the race revolutions of the European and Southern Asiatic areas before the fifth century, and about them

I have a great deal more to say on another occasion. I have now done. Having thrust back the Mongols and Turks beyond the Altai, I have tried to show who occupied the vacant area before them, and have tried also to affiliate the various tribes, who flocked into and across the Russian steppes from the fifth to the nineteenth century, to their several types. I am conscious of having committed many errors, but the subject is profoundly difficult, and I would conclude in words used by M. Wolff, the author of a recent work on the Mongols.

Vive, vale ! si quid novisti rectius istis
Candidus imperti, si non, his utere mecum.

DISCUSSION.

MR. HYDE CLARKE, in commenting, took the opportunity of communicating his own recent observations, considering the Khunzag to be equivalent to Huns, Alans, and Avar. He said the class, so far as language was concerned, was not Ugrian, though Ugrians took part in the settlement of Hungary under the leadership of the Avars, as stated. The class of languages called Lesghian, including the Avar, Khunzag, Kazi-Kumuk, etc., belonged to the Vasco-Kolarian, being allied to the Basque of Spain, the Kol, Sonthali, Uraon, etc., of India, the Houssa, Mandingo, Bambarra, Yarriva, Ashantee, Fantee, etc., of West Africa, and most probably the Korean. The Chetamache and possibly other American languages were related to this stock, which is of an early pre-historic class, and one of those which took part in the universal migrations. Its chronological place appears to be previous to the Dravidians. In an ethnological point of view the Basque and Caucasian members are now white, but he was inclined to believe their predecessors, *in situ*, were dark like the remaining members. Besides the transmission of language it was to be noted the Vasco Kolarian nations were marked by their warlike propensities. The Basques had resisted the Romans and now contended with the Spaniards. The Huns and Avars had taken part in the destruction of the Roman empire, and the Lesghians had lately contended under Shamyl against the Russians. The Koreans had lately resisted the English, Americans, and French. The Sonthals had been in rebellion against us, and last year again threatened. As to the West African nations they were then fighting for and against us. The Korean and Ashantee numerals showed an unexampled conformity. It is quite possible that the theory is right that the Lesghians are the Pe-lasgi of antiquity, taking part with the Hellenes in destroying the Caucasian settlements, as the Avars had done with the Goths in attacking the Roman empire. It is a subject for investigation whether the English did, as tradition states, pass through the Caucasus, for there are circumstances of race and language which favour the idea. It may be mentioned as a correction that Bede, in his Ecclesiastical History, names the Huns as among the invaders of Britain with the English; but these must have been the Hunsing, one of the great branches of the Frisians. With regard to the Ugrian allies of the Avars he had found facts which pointed to their *habitat*. In East Nepal and other

districts of the Himalaya were languages allied to the Fin, Magyar, Ostiak, Lap, etc. The Magar he considered to be the same name as the Magyar. In the future enumeration of the Ugrian languages the Himalayan congeners will have to be included. It is remarkable that they include examples of all the dispersed languages and dialects from the Arctic Sea to the Danube. It was possible that a migration from the Himalayas supplied the Avars with their Magyar allies, and that the Lesghians, being only a ruling class, had by inter-marriage lost their language and acquired the Ugrian. In Russia, the Waring language and stock had died out and been superseded by the Slavonian. The Kazi-Kumuk has affinities with the languages of the Nile region, and indeed he had traced African congeners for all the Caucasian languages except the Cherkess. The Lesghian class showed the same wide diversities as their West African representatives. He must add that it had not been noted that near the Magars was a branch of the Limbu, who may after all have given the name of Hun, and not the Khunzag.

Mr. JEREMIAH, JUN., was glad that the members had the opportunity of hearing this communication read, as most of Mr. Howorth's papers on the Nomades were unfortunately taken as read and then printed in the "Journal," without any comments being appended by those who would probably offer them, were they put through the same process as most other papers are. What really seems inconsistent in the views of Mr. Howorth is his relying upon, in his previous papers, as an authority upon European ethnology, the notorious Klaproth, who so well succeeded in misleading England and Russia in the manufactured maps of Central Asia, while ignoring him as an ethnologist in the paper just read. We have yet to learn who were the original Majiars, and whether there is a larger infusion of them in the people known to us at the present time as the Huns than of the descendants of the other Nomades who infested Central Europe. The difficulty of solving this problem is the common difficulty in all questions relating to the origin of individual communities in Europe. The name *Hun*, for instance, is not yet definitely known to occur between the vast space of time that intervened between the fifth and ninth centuries. Again, *Hun*, as a distinguishing word, stands in the same relation to the *Hungarians* or *Majiars* as *Welsh* to the *Cymry*. Both names are foreign to the people designated, and similarly the Huns call themselves Majiars, and the Welsh *Cymry*. But what Majiar and *Cymru* may mean, or what were the original forms of these words, or who were the people thus originally distinguished from their neighbours, are the knotty points to be cleared away. The forces of Attila, composed of remnants of many tribes, must have done much towards entangling the numerous peoples they overcame; the ethnologist, therefore, is courageous who attempts to make all such matters involved in the paper as we have heard read this evening conformable to the conclusion of Mr. Howorth; as it yet remains to be decided how far its author has succeeded in fully estimating the extent of that intermixture. In the opinion of the speaker much more requires to be done, and all must feel regret at the present communica-

tion being the last upon the Westerly Driftings of the Nomades in Europe.

The Director also read a brief note on Implements from St. Brieuc, by M. S. Hénu.

The President drew the attention of members to two Maori Skulls, found in a cave near Auckland, New Zealand, presented by Mr. Gould Avery to the museum of the Institute.

The following communication was read from Major-General Scott, C.B., relative to the formation of an Ethnological Museum, in connection with the Annual International Exhibition.

LONDON INTERNATIONAL EXHIBITION, 1874. *The ETHNOLOGY and GEOGRAPHY of the BRITISH EMPIRE.*

1. Her Majesty's Commissioners have resolved to commence, in connection with the series of International Exhibitions, *permanent* collections which shall illustrate the ethnology and geography of the different portions of the British Dominions, and ultimately form a great National Museum of the Empire upon which the sun never sets. They will be arranged for the present in the galleries of the Royal Albert Hall. Many portions of the Empire are inhabited by aboriginal *rac*es, most of which are undergoing rapid changes and some of which are disappearing altogether. These races are *fast* losing their primitive characteristics and distinguishing traits.

2. The collections would embrace life-size and other figures representing the aboriginal inhabitants in their ordinary and gala costumes; models of their dwellings; samples of their domestic utensils; idols; weapons of war; boats and canoes; agricultural, musical, and manufacturing instruments and implements; samples of their industries, and in general all objects tending to show their present ethnological position and state of civilisation.

3. It is proposed to receive for the Exhibition of 1874 any suitable collections which will be grouped and classified hereafter in their strict ethnological and geographical relations. As, however, there is at present great public interest in the various tribes inhabiting the West Coast of Africa, including the Ashantees, with whom this country is at war, all objects relating to the Ashantees, Fantees, Dahomeys, Houssas and the neighbouring tribes are especially desired. The Indian Empire, the Eastern Archipelago, and the islands of the Southern Hemisphere are also able to afford abundant and valuable materials for the proposed Museum, of which it is believed that the nucleus can be formed at once from materials in private collections.

4. Her Majesty's Commissioners confidently appeal to the civil, military, and naval officers of the British Service throughout the Queen's dominions to assist them in these collections.

5. Her Majesty's Commissioners have secured the services of eminent gentlemen to advise them from time to time in giving effect to these intentions.

It is requested that offers of gifts and loans of objects should be made known at once to the Secretary of Her Majesty's Commissioners, Upper Kensington Gore, London, S.W.

The meeting then adjourned.

JANUARY 13TH, 1874.

Professor BUSK, F.R.S., *President, in the Chair.*

THE minutes of the previous meeting were read and confirmed.

The following new members were announced: J. WALHOUSE, Esq., F.R.A.S., Randolph Crescent, Maida Vale; and RANDALL JOHNSON, Esq., Tunstead, Norfolk.

The following presents were announced, and the thanks of the meeting were voted to the respective donors.

FOR THE LIBRARY.

From the SOCIETY.—Bulletin de la Société Impériale des Naturalistes de Moscou, No. 2. 8vo.

From the DEPARTMENT OF STATE, CENSUS OFFICE.—The Statistics of the Population, Social and Vital, Industry and Wealth of the United States, in 3 vols. 4to.

From the GOVERNMENT.—The Bengal Government Selections, 1872. 8vo.

From the ACADEMY.—Bulletin de l'Académie Royale de Copenhague, No. 1, 1873.

From the IMPERIAL ACADEMY OF SCIENCES OF VIENNA.—Sitzungsberichte philos.-histor. classe, 72 and 73 band, heft 1-2; Ditto Math.-naturw. 1872, 1, 2, and 3, abtheil, Nos. 6-10; Ditto, ditto, 1873, 1 abtheil, Nos. 1-5; Ditto, ditto, 2 abtheil, Nos. 1-3. Almanack 1873. 8vo.

From the EDITOR.—Nature (to date).

The Director read the following papers:

The NAGAS and NEIGHBOURING TRIBES. By S. E. PEALE, Loc. Sec. Anth. Inst. [With plate xxv.]

THE tract inhabited by the so-called Nagas lies mainly between lat. 25 N. to 27 deg. 30 min. N., and long. 93 deg. 30 min. E. to 96 deg. E.

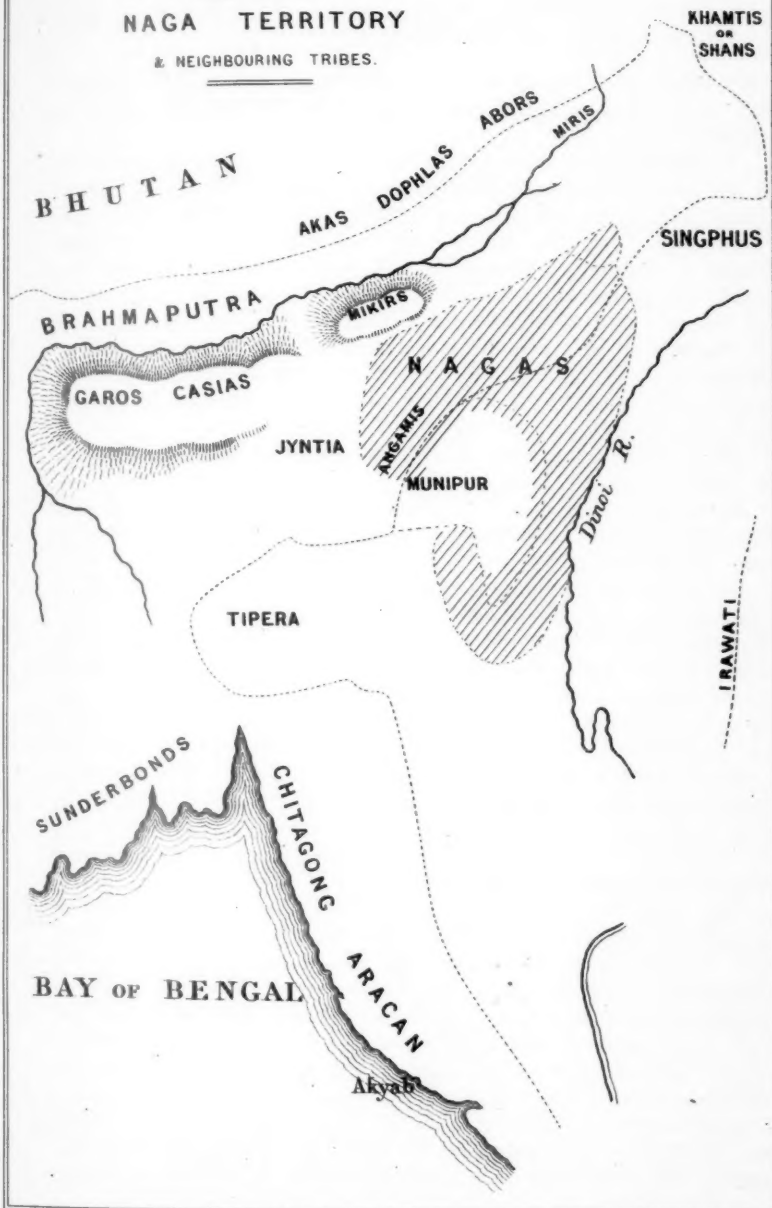
To the east lie the Singphus (Tsingpos or Chingpaws), who are a distinct sub-race, and have strongly marked differences in language, physique, and customs; they are called in Burma Kakyens. To the north of the Naga Hills lies Asam, and to the west there are various tribes of Mikirs and Jyntias; while to the south the boundary is not clear, and Nagas seem to merge more or less into the surrounding Turanian races about Manipur and to the east of it. The inhabitants of this tract, though called Nagas, are divided and sub-divided to such an extent that few parts of the world, I should suppose, can present such a minute tribal segregation.

Here and there groups of villages and even tribes are known to the Asamese and others by a general term, such as "Angamis," "Rengmas," "Latus," &c., but these are again cut up into smaller communities owning no definite allegiance to any one in particular.

Occasionally a tribe may consist of twenty or more villages—all speaking the same dialect, and ruled by one head chief; on the other hand many tribes—especially near me—consist of but four villages, and even as low as one; and in other cases, again, these villages have no recognised Raja at all, but, instead, are governed by headmen, called Kunbaws (or Khunbau). There is considerable variety in the systems that obtain, and still greater in the numbers that constitute a "tribe." My acquaintance with these hill men is more limited than I could wish, but, as far as I can see, they are at root the same, and what differences we see are mainly due to the singular isolation which has existed for long periods.

The area lying between the Irawati, Asam, and Bengal is mainly composed of densely-wooded hills of moderate altitude, and is also subject to like climatic conditions; the S. W. Monsoon, sweeping across the entire country, literally deluges it with water taken from the Bay of Bengal, and, with the hot sun, conduces to a rank vegetation; partly, perhaps, in consequence of this, most of the villages are perched on hilltops, on the shoulders of spurs, and in the rains (say May till October) communication is at a standstill. There seems hardly a flat stretch of land anywhere, all is hill and valley, and thus the system of cultivation is mainly by what is called jooming,

(Rough Sketch)
Map of the
NAGA TERRITORY
& NEIGHBOURING TRIBES.





where forest is felled and the site used for two years only, when, in consequence of the growth of rank weeds, fresh forest is again doomed, and a system of permanent culture of one spot is impossible. In fact there is a remarkable and direct connection between all the peculiar customs of these strange people and their physical surroundings.

The two main facts to remember first, however, are—that the word “Naga” has a definite geographical limit, and that, secondly, the race so designated is subdivided into literally innumerable independent tribes, who are constantly at war with each other.

A very common and conspicuous feature of the Nagas, Garrows, Kukis, Lushais, and other hill races of this part of S. E. Bengal, is their custom of taking human heads, either by regular warfare, raids, or casual surprises. Not only does the custom seem almost universal among them, but it has obviously existed for some ages in its present form, and is really the cause of the strongly-marked variations in both language and physique that exists among these Naga tribes, no two of whom are really alike.

It is often supposed (even here) that these raids and murders are due to revenge, disputes, or blood feuds, and that there is always more or less of a personal element in the affair, than which there could hardly be a greater mistake. Occasionally there are causes, but by no means always; and among the tribes near here, probably not more than half, if as many, have any grudge personally against those they kill. Among certain tribes peace may be the rule and war the exception, while among others again it is the reverse; other tribes, again, seldom fight together seriously, whereas some are at perpetual enmity.

Most of the Naga tribes, with which I am acquainted, tatoo more or less, some on the face, some on the body, and to obtain this “Certificate of Manhood” they must present their Raja with a human head, always whereabouts a Naga’s, and generally belonging to a tribe not related. How they obtain this is nobody’s business; perhaps a young man’s sweetheart has rallied him on his clean, girl-like face, and he takes his dau, spear, and cooked food, and lurks near a spring on the territory of another tribe, till some unfortunate woman or child comes within reach, and there is not time for a death cry, and, presenting the head to the Raja, is tattooed with the *ak* or mark of that tribe, and henceforth is a man.

At other times a party of youths who desire to get their *ak* will arrange to waylay a pool where the people of another tribe are certain soon to fish, and, if a larger party come, they go off quietly and unseen; but, if a small party, they watch their

opportunity and rush out, securing, perhaps, three or four heads, though perhaps losing one.

Again, the young men of several villages of the same tribe or allied tribes, often combine to raid a more distant village or "chang," occasionally with success, but at other times with none, or, even worse, may get badly cut up in turn *en route*. With such parties there are usually older men to show the way, and who also wish to score extra decoration or obtain plunder.

Between such raids for heads and regular warfare it is difficult to draw the line, especially as the heads of the slain are invariably taken in all cases. Waylaying or ambush is the most common device; quarrel or dispute is obviously not the cause then, as it is generally impossible to say whose head will be taken.

I think it all the more needful to draw your attention to this, inasmuch as the subject is not yet fully understood in this light, even here. The pernicious system of constantly changing the officers in charge of our district precludes the possibility of their obtaining much information, and mistakes of the executive are thus liable to occur.

Occasionally there are regular tribal wars, and also, perhaps, family blood-feuds, and thus a combination of causes produce the singular phenomena of small isolated tribes perched on peaks, and relying almost entirely on their own resources. To such an extent, too, has this been their past system, that isolation has developed well-marked lingual and physical variation in almost all cases. Less so at the edge of the plains, perhaps, than further in, as the villagers near Asam often meet there.

As an almost necessary consequence of their whole mode of life they are a fine, hardy, and active race, excelling in all that relates to forest lore and labour, while, on the other hand, conspicuously deficient in all the so-called arts, as pottery making, working in metal, writing, etc. Going nearly naked and really not needing much covering, weaving is at a low ebb, at least in the tribes to the east of Asam.

But, perhaps, the most singular feature is the almost total absence of agricultural implements (as such); with the *Dáu* or p-shaped axe literally everything is done, from the first clearing of the forest to the last item. There are only two agricultural implements at all used, as far as I can ascertain, one is a weeding loop made of a slip of bamboo, and the other a small iron hoe, about the size of a dessert spoon, also used for weeding by girls and women. The soil before planting is scarified by the *dáu* or p-axe, and when the seed is put in it is dropped into a small slit made by this tool-weapon.

In actual mental capacity they are rather low, for, though

smart or cunning in anything that relates to their ordinary life, they are soon lost when trying to go beyond, none that I know can count above ten, their numerals go so far only,* and vary at every twenty or thirty miles distance. (Of this I am trying to procure statistics.) I have often paid them in mixed coins small sums, and very few, I find, can do even the simplest sums in addition. They will sit in the shade of a tree, doubling down their fingers till quite bewildered. Only yesterday, the brother of a Raja, while informing me of the loss of three of his sons and a brother, who were killed in an ambush while out for heads, tried to convey the number thirteen, and did so by first holding up both hands open, and then holding three toes together, at the same time cautioning me not to forget the five fingers that held the three toes.

Their ideas of supernatural beings are on a par with all this, their word for God (here) is Harang, which also stands for angel, goblin, etc., and he is simply a sort of will-o-the-wisp, who delights to torment them, and can be generally propitiated by eatables placed at the wayside.

Properly, they have little or no religious feeling, such as we understand the phrase, and their ideas on these questions are generally so vague as to be often quite contradictory.

So far as I can ascertain they here carefully throw away and avoid touching all the stone celts they find while clearing their lands, considering them the uncanny relics of a bygone race, who were not exactly men. I have only procured one small axe, which is neolithic, and is now, I believe, with the Asiatic Society, Bengal, among other things sent them.

I know of no stone weapons or tools in use now, unless as hammers used by blacksmiths near the Hills. In Asam I lately saw a fine stone hammer used by an old Khampti. The handle was made of a creeper, and lashed on.

DISCUSSION.

Major GODWIN-AUSTEN said Mr. Peale's paper is of great interest, for the more information we can collect of these little known tribes the better; of those inhabiting the interior of the hills we know absolutely nothing. The Nagas, with whom I am acquainted, lie to the west of those described by Mr. Peale, in the hills between Assam and Manipur, viz., the Auhâmi, Tangkûl, and Kutoha Nâgà near Asalû. They are quite distinct from the Kûkis, on the South, who have apparently come up from the line of the Arakan hills and south-west, while the Nagas are from the east-ward. With reference to head taking, I can

* 1 eta, 2 ani, 3 ajum, 4 ali, 5 aga, 6 aruk, 7 anut, 8 achut, 9 akû, 10 abin. Joboka, baupara, muton—numerals only.

testify that it is not always caused by the existence of blood-feuds; they will take human life whenever a safe opportunity offers, and one of our *dák-men* (letter-carrier) was thus killed, perhaps more for the sake of his musket than aught else. A party lay in wait for him by the wayside and speared him as he passed. With reference to tattooing being a mark of manhood, or the having taken a head, I may mention that the Aughami Nagas do not tattoo. They have, however, a similar custom; the wearing of rows of cow-ries on the kilt (drawing shown) is permitted to those men who have killed an enemy, and this is extended to members of a marauding party, when heads are taken. The number of lives thus sacrificed in these hills is very great. In one village of Gaziphimi, we counted no less than fifty-three skulls, stuck up on poles, as shown in the sketch I have brought here to exhibit. I have seen both stone and hard wood inserted into wooden handles and used for weeding by the Kukis in the north Cachar hills. With regard to the ignorance of the Nagas met with by Mr. Peale, and their not being able to count beyond ten—the Aughami, and those I know, are far in advance of them, and have terms for the numerals up to one hundred, as may be seen in vocabularies of the languages (*vide* the last by Captain Butler, Political Agent, Naja Hills, in "Journal Asiatic Society," Bengal, 1873). Dr. Campbell made some allusion to the Nagas being snake worshippers. I never saw any trace of such worship, nor does it exist. They do not call themselves Naga, which is a term used only by the Assamese for the people inhabiting these hills, and I think the term was quite as likely to be derived from the Hindi "Nanga," naked. The Nagas are pure demon worshippers, and propitiate them by sacrifice in illness or misfortune.

Colonel A. LANE FOX said that there were points in the paper, and in Major Godwin-Austen's communication, that were of interest to those who believe that important evidence of connection might be traced by means of the arts and customs of savages. The description of the head-taking amongst these people was so similar to what prevailed amongst the Dyaks, that in listening to the paper, one might almost suppose it was written as an account of the customs of the Dyaks of Borneo. In the use of a tool-weapon they appear also to resemble the Malays. The *parang-illang* and *parang-latok* of Borneo are used for all purposes exactly in the same manner as the *Dao* described in the paper; and Dr. Campbell would no doubt tell us that this tool-weapon was used much higher towards the north. Then again, the form of the shield affords another point of connection. The form of the shield is very persistent in its distribution; it is not used in Polynesia as a rule. In Australia, the shield is nothing more than a parrying-shield, with many varieties, having a place for the hand inside. He believed it would not be correct to say that the circular shield was absolutely unknown in the Malay archipelago; but, as a rule, the shields in all the islands were long and narrow, and had a handle in rear, and were used much in the same manner as the Australian one. In all the islands the shields were varieties, more or less modified, of this long, narrow shield. Major Austen's drawing shows that this long, narrow

shield, is also used by the people described in the paper. The Rangoes of cane shown on the top of the shield, and used in a *chevaux de frise* when stuck in the ground, are also traceable to the Malay Archipelago. Similar defences, are used in China; but they belong especially to this quarter of the globe; they are used also in Fiji. The tracing of such resemblances as these is of interest when taken at its proper value, not as implying necessarily common racial origin for people amongst whom such customs prevail, but denoting that a like phase of culture has spread over a given area. The Malay peninsula has, no doubt, served as a high road of communication throughout all time between the continent of Asia and the islands, and many other resemblances may be traced by means of it.

Mr. HYDE CLARKE remarked that the Naga languages were well deserving of study. They present the characteristics of the earliest pre-historic periods. Thus, for instance, Night, Black, and Not are all represented by Nak. There is one peculiarity interesting to the student of pre-historic weapons, that the name for arrow is takaba; in Khari Naga, and in the Houssa of West Africa, kebia; but knife and sword are takobi. A village is Arame in Angami Naga, and forest in Fantee of West Africa is Abarama. In the pre-historic epoch, the words for house, and tree, and village, and forest, are often synonyms.

Dr. A. CAMPBELL also offered a few observations.

The Stone Monuments of the KHASI HILLS. By C. B. CLARKE,
[Communicated by Professor H. Fawcett, through Sir John Lubbock, Bart].*

THE Khasi Hills form a plateau, at a mean elevation of 4,500 feet above the sea, between the plain of Assam on the north and the plain of Sylhet on the south. They are inhabited by the Khasi tribe, a people very distinct from the Hindoos north and south of them, and who are a branch of a race which extends eastward as far as South China. Immediately east of them are the Jaintea people, also called Sintengs, who are very closely allied in race and customs to the Khasi tribe. The Jaintea country is physically a portion of the same plateau as the Khasi, and is only arbitrarily divided from it, and exhibits the same grassy hill-tops. The Khasi and Jaintea tribes together occupy the political district administered by the Deputy-Commissioner of Shillong, and the whole plateau is accordingly called the Shillong Plateau by Mr. Medlicott, the Dep.-Superintendent of the Geological Survey in India. Shillong is the English station which is the political capital. The plateau is remarkable for its freedom from the dense jungle which covers the neighbouring Himalayas at similar elevations; it is a fine rocky moor-like plateau, with isolated

* The woodcuts illustrating this paper have been kindly lent by Mr. Murray.

patches of open forest, and with scattered fir trees and oaks. Though south of the Himalaya range the character of the country is more like that found in the Himalayas at 4,000 feet higher elevation, and many plants, never collected in the Himalayas below 9,000 feet above sea-level, are found in the Khasi Hills between 4,500—6,000 feet. In this marvellous plateau the sub-alpine and the sub-tropical forms overlap; at the very foot of elegant palms may be gathered the identical stag's horn moss, which, in Britain, is found only on mountains. On a fir tree much resembling a scraggy Scotch-fir is seen growing the *Vanda cœrulea*, the king of epiphytic orchids; a gnarled oak will carry a gigantic tropical liane; the painted lady and many other British species of lepidoptera will be accompanied by gorgeous tropical papilios and by window moths eleven inches across the wing; the cuckoo and Himalayan pheasant are above, while the tiger, the wild elephant and the green python are below. Justly has Dr. Hooker observed, "I know no spot in the world more calculated to fascinate the naturalist who, while appreciating the elements of which a landscape is composed, is also keenly alive to the beauty and grandeur of tropical scenery."

2. Almost throughout Khasi-land, and in a less degree through the Jaintea country, monumental stones are common. They are numerous in villages in the valleys, but are specially prominent, and sometimes of gigantic size, scattered over the rounded hill-tops where they form a feature in the landscape. In all modern treatises of Archæology and Anthropology the study of monumental stones forms an important chapter. Monuments of a remarkable similarity in design are found alike in Europe, Asia, and isolated islands in the Pacific Ocean, and these are in general of such extreme antiquity that they are treated as belonging to the prehistoric age. The Khasi stone monuments have attracted already much attention; first because of their great number and size; and, secondly and chiefly, because on these hills the erection of these monuments is now in full practice. It is reasonably supposed that a careful study of the Khasi method of raising the stones, and of the traditions or customs in accordance with which they raise them, may throw some light upon more ancient monuments of the same kind, even upon Stonehenge. It has been proposed to send out a commission from England to survey these Khasi stone monuments. They are described by Dr. Hooker, in his work (*Min. Journ.* II. 276), also by Colonel Raban in the *Calcutta Review*, and some account has been lately given by Major Godwin-Austen in the "*Journal of the Anthropological Institute*," No. 2, Oct. 1871. The present memoir was written

years ago, previous to some of these published accounts, but contains several details not given by any of them.

3. The Khasi stones are of three classes, viz:—

- a. The funeral pyres.
- b. The kists containing the pots of ashes.
- c. The monumental groups.

It is the last class (c.) which has, hitherto, nearly monopolised attention, and to which the published notices almost exclusively refer.

4. THE FUNERAL PYRES.—When a rich man dies his body is generally reduced to ashes immediately, but his honorific cremation does not take place till some time, often a year, afterwards. In the interim the earthen jar containing his ashes is kept "under a stone" (in Khasi talk) *i.e.*, in a small temporary closed kist. For the honorific burning a pyre is prepared on which the ashes are burnt over again a very little, *pro formâ*, and the great funeral feast follows.

The pyre is placed just outside the village of the deceased, on a hillock or in a clear space and near the road. The modern pyres are usually square (approximately), the sides of stone (dressed or undressed according to the means of the family) about four or five feet high, the whole of the middle filled with loose stones and earth up to the level of the walls.*

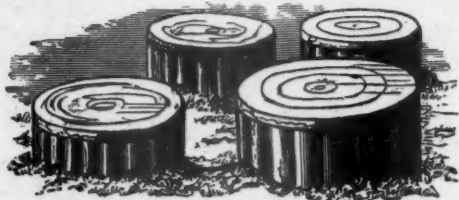
A pyre was raised about four years ago just outside the village of Mausmai close by the English main road. Many hundreds of men and women carrying from $\frac{1}{2}$ cwt. to $1\frac{1}{2}$ cwt. on their backs pass close by this pyre daily and a considerable per centage rest a few minutes on it. Ledges are raised on two sides, but are by no means essential to a pyre; they merely add a utility. The Khasis mean the ledges to be a convenient height to rest on with a load, and each ledge satisfies this condition, but no Khasi would dream of measuring with a two-foot rule, so as to get them the same height. So the pyre itself is meant to be a square or thereabouts. All the Khasi stonework is done in this way; they do not care to make it geometrically accurate, and consequently in my opinion little valuable result could be drawn from any accurate measurement and mapping of the stone monuments.

This pyre at the entrance to Mausmai is one of the most complete modern pyres. The ancient pyres were very seldom (if ever) made with hewn stones, and the Khasis state that in former times they were as often made round (*i. e.* oval) as square. Being thus originally very roughly shapen heaps of loose

* For admirable illustrations of the Khasi monuments, see "Proceedings of the Soc. Ant., Scotland," vol. i, p. 94. Fergusson's "Rude Stone Monuments," chap. xiii, and "Asiatic Researches," vol. xvii, p. 506. [Ed.]

unhewn stones, and, being used on only one occasion, they rapidly fell into complete decay. Dr. Hooker mentions that he repeatedly remarked cones of earth, clay, and pebbles, about twelve feet high, upon the hills, which appeared to be artificial. These must have been the broken down pyres.

5. THE KISTS CONTAINING THE POTS OF ASHES.—These consist of a circle or square of upright stones, fitting as closely as a Khasi can conveniently make them to do, with one round or square flat stone on the top. They vary in size from a few inches diameter to six or seven feet.



The circular kists are more especially used by the people of the valleys, *i. e.*, who inhabit villages at less than 3,000 feet above the sea; at Walong and Sabhar, which stand west and east of the main Government road as it steeply ascends from Sylhet, there are hundreds (I am not sure that there are not thousands) of kists of this type inside the village. The Khasis of the grassy plateau, the true Nongphlang (*i. e.*, people of the grass in Khasi language, the genuine representative type of the tribe) very commonly employ square kists.



One great feature of the Khasi sepulture is that the ashes of the families are collected from time to time. At first the ashes of a man are probably kept in a small kist. Then after a few years a great general family ceremony is held, and the ashes of the various individuals of the family are collected from the smaller kists. The ashes of all the men are collected into one earthen jar, the ashes of all the women are collected into another, and these two jars are placed in one larger kist, the jar

of women's ashes next the door, *i. e.*, the last stone closed; the reason of which is that in Khasi-land the woman is always mistress of the house. The quantity of ashes altogether is very small.

Each occasion of collection of family ashes is accompanied by a grand family feast, which is mainly of pig. No bones of pig could by any chance get inside the kist; that would be horror.

The stones forming the kist fit as closely as a Khasi can conveniently make them; a mouse might, however, generally get in. In the neck of each earthen jar of ashes a close-fitting stone is placed so that no animal could get at the ashes within; but this, of course, does not fit by any means air-tight, and the damp of the climate affects the ashes so much that on re-opening the kists after even a few years, for the purpose of agglomerating the family ashes, it frequently happens that no trace of ashes is found in the earthen jars.

In the descriptions of the Khasi stone monuments hitherto published, these numerous kists appear often overlooked or confounded with the horizontal monumental slab. The kists differ entirely in their object and meaning, and in being closed. So long as they contain earthen jars they cannot be mistaken; but by the continual collection of family ashes the majority of the square kists are left with one side broken down and empty, and in such a state it is sometimes impossible to determine whether the horizontal slab be a monument or the lid of an old kist, unless a family can be found to claim it as their monument. Where there are no upright monumental stones near I incline to suppose that a large majority of these doubtful remains are kists and not monuments.

6. THE MONUMENTAL GROUPS.—There are two general types of monumental stones, viz., the upright slab and the horizontal slab.



The upright slabs are commonly grouped in threes or fives (sometimes they are seven or more); they are nearly always oblong and set up in a row with the tallest stone in the

middle; annexed is a representation of a common type containing five stones.

A common height for the middle stone of such a monument will be six to ten feet, by 2-3 feet wide. The stones are sunk not very deep, say 1-2 feet, into the earth; great numbers of fallen stones are seen. Monuments of this character are often placed on the crest of the hills, and in many parts of Khasi-land the landscape appears dotted over with them.

The horizontal slabs are commonly grouped in pairs. The flat slabs may be 5-10 feet long, and are rarely so exactly quadrangular, and they generally have some of the corners irregularly rounded off, and thus pass into the oval or round horizontal slab, which is also a frequent type.

The upright and horizontal slabs are often combined to form a single monument, and perhaps the commonest of all the combinations is that in which five upright slabs have two horizontal before them. The combinations adopted are, however, endless in variety. In these combinations it must be understood that the whole group of stones forms one indivisible monument, which may be the monument of one individual, a household, or a family. Families retain a history of the monuments which belong to the family, and thus in a small degree of the names of their ancestors. Such family monuments may be repaired, added to, or rebuilt from time to time. They are not necessarily placed where the family ashes are kept in kists, or near such kists; but they are usually at no great distance from the village where the family dwells.

The putting up a large stone, say one that stands fifteen feet out of the ground, is a very costly matter, and the monuments of the first class in size in the Khasi country are not very numerous; in the monuments of small stones, the number of stones is often great, I have noticed twenty-one stones in a row, no stone exceeding two feet high.

The upright slabs are (particularly when unaccompanied by any horizontal slabs) usually placed in a straight line. But frequently, where the horizontal slab is round, the upright slabs stand in the arc of a circle, and sometimes the upright slabs are placed in a curved line apparently by accident, or because the nature of the steep ground suggested such an arrangement. Two such monuments occur on the main road to Lailankote.

Major Godwin-Austen states in his article on the subject that the upright slabs *always* stand in threes, fives, sevens, etc. This is a mistake; to have the number of stones unequal, with the central slab the tallest, is perhaps the plan adopted in forty-nine monuments out of fifty; but among the vast variety of monuments

in these hills a dozen monuments on the binary type may soon be found in which there are two equal upright slabs in the middle, and the other stones placed symmetrically on each side of them.

7. There are three kinds of rock employed by the Khasis for stone monuments, viz. :—

- a. The Cherra sandstones.
- b. The Shillong sandstones.
- c. The granite.

Small stones are conveyed considerable distances from the place of manufacture before they are set up—large stones are not—hence the material of the monuments is determined everywhere geologically.

a. The Cherra sandstones are tertiary and cretaceous rocks spread along the southern edge of the plateau and producing the ledges which mark its abrupt termination. In the great thickness of these sandstones are many beds in which the rock occurs in large sheets with very few joints, and well-adapted for working out large slabs therefrom. The sandstone is generally very hard, but not so hard but that the Khasis can work it with their own native-made iron tools.

There is a quarry, now in full work, about half-a-mile out of the old Cherra cantonment, upon the Mamloo path, where slabs may be seen in preparation. The slabs made from the Cherra sandstones, admitting of being worked, are generally hewn pretty fairly to a shape and smoothed before being set up. The ancient monuments are, however, often made of very rough slabs.

All the well-known monuments near the old Cherra station are made of these sandstones, as also the large monuments at Mamloo, Mausmai, and Lirinow. These three monuments all stand on sheets of Cherra sandstone and the stones were cut out of the rock hard by where they now stand. The stones quarried now outside the Cherra cantonment, being for transport, are none of great size.

The Khasis also work gigantic slabs of stone for bridges. Where the span is anything under twenty feet a single slab four or five feet wide and two feet thick is thrown across; piers of enormous blocks of sandstone are raised on each side, on which the slab may rest, if there is the remotest fear that the water can, in any flood, reach the under surface of the slab. As compared with such a bridge the Khasis regard the best efforts of the English engineers as mere makeshifts. The arch at Amwee figured by Dr. Hooker is Bengali work.

b. The Shillong sandstones extend over a large area of the northern portion of the plateau: they are often more argillaceous

(sometimes slaty) than the Cherra sandstones, and are geologically ancient, probably being of palæozoic age, but containing no fossils. They are generally inclined at high angles and the beds are full of joints, and do not admit of large slabs being got out of them. I know of no monument of the first class made out of Shillong rocks, but slabs of six feet high are very common. They are generally obtained by splitting out with wooden wedges and are not often finished with iron tools. The monuments on the Shillong sandstone area are therefore of a much rougher character than the Cherra monuments, the stones irregular in shape, and the stones that should correspond in size only corresponding very roughly. It is often very difficult to say whether these monuments are of the regular 3-5-7 stoned type or not, but they all are designed in general accord with the two great types of upright and horizontal slabs.

c. A large area, perhaps 1,000 square miles, of the Shillong plateau, is covered with scattered blocks of granite, varying in size up to masses as large as cottages: perhaps the Kollong rock itself (figured by Hooker) might be counted as the extreme size



such blocks here reach. This granite area runs east and west through the centre (or somewhat through the northern half) of the plateau. It is of great width and continuity westward, becomes broken into isolated areas in the centre of the hills, and becomes very narrow in the Jaintea territory, finally dying out

in East Jaintea, according to the Khasis, who are good geologists.

These granite blocks are found on the steep hill sides and on the hill tops, the valleys between being often entirely destitute of them. The highest hills of the plateau are especially favoured with them as Nonglas (Nunklow) and Laitlankote. On the edges of the granite area and on the isolated peaks of the country, outlying heaps of granite blocks are found. Around Jowye (the Jaintea capital), the country is very uniformly at a level of about 4000-4500 feet above the sea, and not a granite block is to be seen there, nor in marching east thence, where you keep at the same level, until you reach the Rallieng hill about twelve miles east of Jowye, where the blocks appear again in full force all over the summit of the hill.

From these granite blocks, slabs of almost any size might be obtained, but the Khasi native iron tools will not work this granite, which is very hard, and the granite slabs used in the Khasi monuments are merely flakes obtained by heating the block with fire along a line and then pouring cold water upon it. The upright granite slabs thus frequently exhibit one convex and one concave face, as also do the horizontal slabs which are round or oval, not quadrangular. The flakes are entirely unworked in the Khasi territory, so that the granite monuments have an extreme rudeness and ruggedness about them which has been commonly supposed to indicate extreme antiquity. This I believe is altogether a mistake, but at the present time the taste of the people appears educated up to a preference for worked stones, and I have not seen any granite monument in process of construction, though I am told that many have been made within the memory of man.

There is an important difference in the Jaintea granitic monuments which are neatly worked to the approved form. The Bengali Rajahs of the plains, Jaintea and Jaintepore, have long established an influence in the hills, and Bengali workmen have thus penetrated the hills from Jaintepore by Amwee up to Jowye, the hill capital, and further. The Bengali tools are able to fashion this hard granite, and the gigantic slabs, whether used for monuments or for bridges, are commonly found neatly hewn, all the way from Jaintepore up to Nartiang, north of Jowye.

Large granite stones are rather more difficult to move than sandstones of the same dimensions, and the first class granite monuments are found on the spot where the granite blocks abound. Where an isolated hill was covered with large blocks, and no blocks were seen anywhere else near, this seems at once to have suggested such a hill as a suitable spot for monumental erections. In just the same way at Stonehenge the large stones

were all found within 200 yards of where they now stand, as may be inferred from the stray stone at about that distance from Stonehenge and not made use of: the small stones were probably brought a considerable distance from the greensand area in the north of the county.

8. In the setting up of these monuments the Khasis at the present day use only the simplest and most direct mechanical means. For transporting a big stone wooden rollers are placed beneath it and the stone is then drawn by a large number of men harnessed to it by rattan ropes. To set one of the slabs upright, one end is slipped into a hole dug 1-3 feet in the ground, while the other end is tugged by similar ropes. For putting one stone upon another, as in a horizontal slab monument, it is drawn up a sloping stage of bamboo, but if the slab be of great weight, a slope of earth must be constructed, up which it may be pulled. These are the present Khasi methods, and it is, of course, highly probable that similar resources were employed in ancient times. I add a more particular account of some of the larger monuments.

9. The monument on the Government main road, about six miles north of Cherra, not far from the village of Lirinow, stands on sheets of Cherra sandstone, out of which the slabs were cut. The tallest stones were about fifteen feet out of the ground. The five stones on the left-hand side (west) of the road were erected when I first visited the hills. The five stones on the right-hand side were erected about four years ago, the family to whom the monument belongs having determined on such an addition. The two portions form one indivisible monument, and exactly correspond, the stones being accurately worked and rounded. The two top-knots are seen in several other monuments, but must, I think, be held proof always of a very late date for their erection. At the Mausmai monument a large rosette is carved on the face of the middle of the big central upright slab, which is also I presume modern work.

10. The monument at Mamloo village. This is, perhaps, the monument in all the hills which exhibits the largest slabs of Cherra sandstone. It stands on sheets of the same rock and there can be little doubt that the slabs were cut on the spot. It is of the (less usual) binary type.

11. The monuments at Rambrai in the west of Khasi-land. These consist of numerous horizontal and vertical slabs of no great size, the upright slabs being 4-8 feet out of the ground, but remarkable for their arrangement on a long open slope outside the village. The monuments stand all close together, collected as in a churchyard, so that it is not easy to separate

out each monument. The upright slabs are placed mainly in ranks, the plane of each slab being parallel to a horizontal line of the sloping ground. The effect of the whole, at a little distance, is exactly that of a ruinous English church-yard. The upright and the flat slabs so exactly correspond to the two types of tombstone which were in almost universal use in England before the rise of modern ritualism, that the correspondence can hardly escape notice. It is improbable that this correspondence can be wholly accidental.

12. The monuments at Laitlankote. These are chiefly made out of a heap of granite blocks which occupy the level top of a small hill, and among them are the largest stones in the Khasai country. Some of the upright slabs are as much as 18 feet out of the ground, and the largest horizontal slab is stated by Colonel Raban, in his account, to be an irregular ellipse; major axis, 32 feet; minor axis, 15 feet; thickness, about 2 feet. It is one block of granite, and, like all the other stones here, is unhewn.



These Laitlankote monuments are collected on the level top of this hill, and (partly, perhaps, from the nature of the ground) they affect, more or less, a circular arrangement—the upright slabs being placed irregularly in arcs of circles on one side of the oval horizontal slabs. The slabs being of unhewn granite are necessarily oval and not quadrangular; but it should be remarked that, in marching from Cherra to Laitlankote, the monuments will be seen to pass quite gradually from the plane to the circular type.

At Laitlankote, the largest horizontal slab is granite: of the

others, some are granite, some Shillong sandstone. Of the large upright slabs round the largest horizontal slab, half are granite, half (placed without method) are Shillong sandstone. And so with the other monuments on this hill. There is no general plan or system (so far as I can trace) in the arrangement of these monuments, as a whole.

It has been inferred from the gigantic size, circular arrangement, and rude workmanship of these Laitlankote monuments, that they are of extreme antiquity, probably the oldest in the hills. I see no sufficient grounds for such an assumption. The workmanship is no rougher than in other Khasi monuments made of granite and Shillong sandstone: the quasi-circular arrangement may be seen in hundreds of monuments: and as to the size of the stones, that proves to me, chiefly, that the Laitlankote monuments were erected when Laitlankote was a dominant and prosperous village. I do not say that the Laitlankote monuments may not be very old, but I should not be the least surprised if positive proof turned up that they had been erected within the last century.

13. The monuments at Nurtiung, figured by Dr. Hooker, and called by him, the "Nurtiung Stonehenge." Nurtiung is in the Jaintea territory, about ten miles east of the Khasi boundary. Dr. Hooker's picture is on a small scale, and gives little idea of the great extent of the Nurtiung monuments, which stand also more closely packed than I should have supposed from the picture.

This Nurtiung Stonehenge contains the largest stones of any monuments in the Shillong plateau; they are also remarkable for being of hewn granite, and further, they are not scattered about the hill tops, but placed within the sacred grove of the village, in a valley near a lake, so that they stand, mingled with large trees, in a manner which I have seen nowhere else in Khasiland.

One of the worked granite blocks is 27 feet high out of the ground, about 6 feet broad at the base, and $2\frac{1}{2}$ feet thick, and is neatly shaped and dressed. This, I suppose to be the work of Bengali artisans, or of their Jaintea apprentices, possibly. There are other very large worked granite slabs; one now used as a bridge, but, perhaps, originally intended for a monument. The area at Nurtiung, thickly covered with monuments, is not less than an acre, and there are more scattered monuments around. The exciting cause for this Stonehenge is, that at Nurtiung there occurs an outlying cluster of granite blocks. None of the large stones at Nurtiung appear to have been moved many feet. The numerous monuments are all reducible to the two types of upright and horizontal slabs, as indicated in the picture of Dr. Hooker.

Until the English period, say up to 1828, it does not appear that the Hindoos penetrated much into the Khasi hills; but they did into the Jaintea hills, and I imagine that either themselves or their handicrafts reached as far as Nurtiung. There is a typical large monument of upright slabs at Jaintea, the capital of the Jaintea plains.

14. The notes for the above account of the stone monuments of the Khasi hills were placed in the hands of Colonel McCulloch (late Governor-General's agent at Muneypoor), and I have availed myself of many suggestions which he has kindly given me in the present paper.

DISCUSSION.

Major GODWIN-AUSTEN said, one of the most interesting points of Mr. Clarke's paper is the notice of the separation of the ashes of the men and women of a family, at certain intervals, into separate earthen pots. I may mention that the shape of the cysts is never the same in any one part of the Khasi hills; sometimes they are oblong and above ground, and sometimes they stand on a raised platform. On opening one, in a part of the country long since deserted, I found entire bones, calcined, and ornaments; these are now always taken off the body before cremation, but, evidently, in former times, were burnt with the dead. The distance the Khasis sometimes carry the monumental stones is considerable. I know of blocks of granite that have been taken into the sandstone area nearly four miles. The custom of setting up these stones is fast dying out, and some villages have given it up altogether. It is impossible to say what age some of the monoliths may be; all history of most of them is gone, and the present generation can give no account of them. The custom is one of great antiquity, I think, and there is no reason why some of the stones, now standing, may not be many hundred years old.

Mr. A. L. LEWIS said, if he, as a visitor, might be allowed to make a few remarks, he would suggest that there was no reason whatever for connecting the monuments of the Khasis with those of Britain. Mr. Clarke had spoken of stones lying round Stonehenge as showing that the stones composing it had been gathered close at hand; but this was not so, as they had been brought from a distance of some miles, and there were no loose stones lying round Stonehenge, except those which had been placed there by design. That design was found running through all the British circles that he had seen; but it was certainly not found in the Khasi monuments. It was, however, found in the circles in southern India, figured by Colonel Forbes Leslie, which differed, therefore, from the Khasi monuments, and resembled those of Britain. He had pointed this out before the British Association as long ago as 1869, in a paper which would be found printed in full in the *Journal of Anthropology*, 1870, p. 286, and also in subsequent papers read before the Anthropological Society and Institute, and published in the proceedings.

The President read the following paper:

DESCRIPTION of a SAMOIEDE SKULL in the MUSEUM of the ROYAL COLLEGE of SURGEONS. By GEO. BUSK, F.R.S., Pres. Anth. Inst. [With plate xxvi.]

As I am not aware that any example of a Samoiede skull exists in this country, or that any description of the cranial character of the people has been published, the opportunity of exhibiting one before the Anthropological Institute and of placing a description of it on record, has appeared to me one that should not be neglected.

Of the authenticity of the skull there can be no question. It was, together with the entire skeleton, and the skulls and skeletons of the Wolf, Northern Lynx, &c., purchased a short time since by the Royal College of Surgeons from Mr. J. R. Alston, to whom they had been consigned by a Russian correspondent in the neighbourhood of Archangel, who had himself, as it would seem, with much difficulty and at some risk, disinterred the bones.

The individual to whom they belonged was aged, but otherwise the remains afford probably a very fair example of the cranial and osteological character of his race.

As the bones require maceration before they can be well described, and as they do not appear to present any remarkable characters, I do not intend, on the present occasion, to refer to any other part than the skull.

The skull, to judge from the teeth, many of which were shed long before death, and of which those that remain are much worn, is that of an aged individual. It is of a strongly brachycephalic type (863), and at the same time much depressed, or, as I have elsewhere* termed such low crania, highly tapinocephalic, the altitudinal index being not more than 776.

The skull is remarkably thin. The sutures all open and very finely serrate. The frontal sinuses well-defined and prominent. The muscular impressions generally faintly marked, except the mastoid processes, which are well but not strongly developed. The zygomatic slender, but the malar bone projects considerably backwards.

1. *Norma lateralis*—(Pl. xxvi, fig. 1).

In this view the forehead appears low and much reclined, whilst the occipital outline above the tuberosity is nearly vertical, but without any appearance of artificial flattening. The temporal lines, except for about two inches behind the external

* *Platycnemic Man in Denbighshire*, "Journal of the Ethnological Society," vol. ii, New Series, p. 440.

orbital process are quite indistinct. The squamosal region is remarkably convex, the greatest convexity being a little behind the vertical line or immediately above the mastoid processes.

2. *Norma occipitalis*—(fig. 2).

The outline in this view of the cranium is, on the whole, rounded, sloping downwards from the summit in somewhat of a pyramidal form to the parietal tuberosities, whence it becomes more expanded, following the bulging in the squamosal region above noticed. The parietal foramina are very minute but distinct. The occipital tuberosity is well marked, but not strongly developed, and below it the subinial portion of the occipital is nearly horizontal.

3. *Norma facialis*—(fig. 3).

This presents, as before-mentioned, considerable and well-defined prominences of the frontal sinuses. The supra orbital border is acute but rather prominent, and exhibits a wide and shallow frontal notch. The orbits are quadrangular and nearly equilateral, being about 1.4 by 1.55 in vertical and horizontal diameters. The canine fossæ, as is usual in aged skulls, are hollow, the alveolar border rather projecting, but not so much so as to allow of the face being termed truly prognathous, the slight prognathism being at any rate wholly maxillary. The nasals are prominent, forming a sharp elevated ridge, with an aquiline curve.

4. *Norma verticalis*—(fig. 4).

The outline is very rounded, rather narrow in the frontal region, in consequence of which the skull is slightly phænogygous. The projection of the nasals is well seen, as is also that of the frontal sinuses, owing to the depression of the frontal region.

5. *Norma basalis*.

From the fact that a considerable quantity of the dried soft parts covers the greater part of the base, I have not been able to give any figure of this view. In it, however, the alveolar border is seen to be rather narrow, the palate deep, and the palatal processes of the palatals unusually narrow. The *foramen magnum* which is nearly central, is oval, 1.5 and 1.25 in its anterior and transverse diameters, and it lies in a nearly horizontal plane. The dimensions of the skull are as under :

Comparative dimensions, proportions, etc., of the Samoede and other Brachycephalic Skulls.

RACE.	1. General.			2. Breadth.					3. Radii.					4.	5. Longitudinal arcs.				6. Transverse arcs.				7. Indices.			8. Contents.		
	Length	Breadth	Height	Post-orbital*	Post-frontal*	Parietal	Occipital	Zygomatic	Frontal	Vertical	Parietal	Occipital	Maxillary	Fronto-nasal	Circumference	Frontal	Parietal	Occipital	Total	Frontal	Vertical	Parietal	Occipital	Latitudinal	Altitudinal	Gnathic*	Capacity (c. i.)	Brain weight (oz. av.)
Samoiede (1)	6.95	6.	5.4.	3.85	5.6	4.5	5.8	4.4	4.5	4.6	3.8	3.9	3.6	20.7	4.9	4.7	4.4	14.0	12.2	12.9	13.2	11.8	.863	.776	.3	93.6	.56	
Mongol (8)...	6.96	5.87	5.59	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.843	.808	.22	...	...
Malay (6) ...	6.85	5.57	5.85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.881	.850	.36	...	...
Rhætic (V.B.)	6.6	6.0	5.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.905	.822	?	...	...

* By "post orbital breadth or diameter," I mean the "least frontal," and by "post frontal," that diameter which I have hitherto termed "vertical," because it was taken at the vertical line. The "gnathic index" is represented by the difference between the maxillary and fronto-nasal radii, which, as I have formerly remarked, may be taken as a rough indication of the degree of prognathism, if any exist.

* By "post orbital breadth or diameter," I mean the "least frontal," and by "post frontal," that diameter which I have hitherto termed "vertical," because it was taken at the vertical line. The "gnathic index" is represented by the difference between the maxillary and fronto-nasal radii, which, as I have formerly remarked, may be taken as a rough indication of the degree of prognathism, if any exist.

Fig 1.



Fig 2

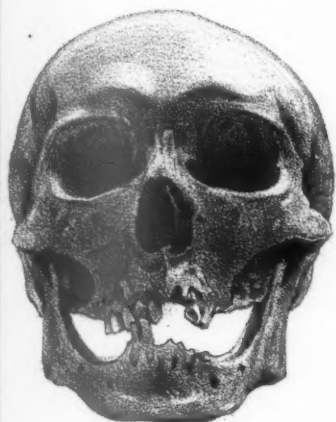
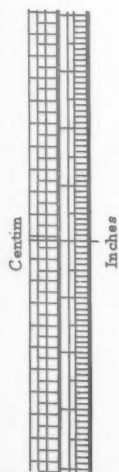
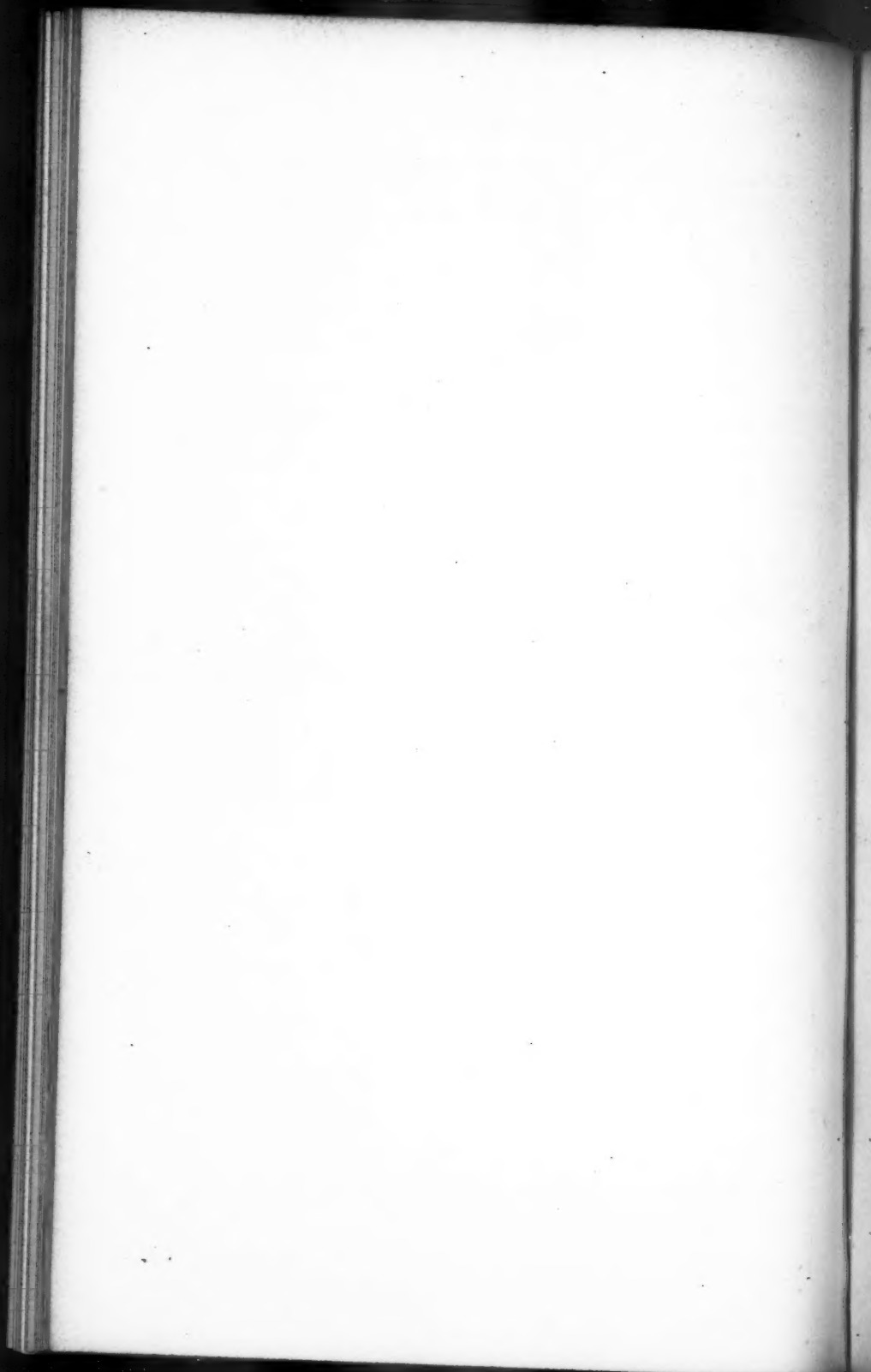


Fig 3.



Fig 4.





In the same table I have also placed the mean dimensions, &c., of eight Mongol skulls, (Chinese and Tartars,) and of six Malays, including two Karen, two Burmese, and two from Sincapore, in order to show how closely in most respects the Samoiede skull corresponds with them in general type. The main difference, which may, of course, be individual, appears to consist in its lower altitudinal index. Although, however, this may be individual, it is worthy of notice that in this respect of altitude the Mongol skulls are intermediate between the Samoiede and the Malay.

I would also, in conclusion, advert to the strong general resemblance, as regards dimensions and proportions, between these Asiatic Brachycephali and the Rhoetic skulls from the Grison Alps, described by Von Baer, of five of which I have subjoined the mean dimensions.

Mr. WILLIAM MARSHALL gave an account of the discovery of skulls in the peat of the Isle of Ely. The following approximate measurements were furnished by Prof. Marshall, F.R.S.

N.B. The capitals refer to Dr. J. B. Davis's Nos.

A. Capacity (?) skull too broken to be measured.

		Anglo Saxon in Davis's collection.	
B. Circumference	19.25	(female)	19.7
C. Fronto-occipital arch	15.		14.2
Frontal	5.		4.8
Parietal	5.25		4.7
Occipital	4.75		4.7
D. Intermastoid arch	15.5		14.6
E. Length	6.75		6.8
F. Breadth (i. p.)	5.5	(i. p.)	5.5
Frontal	4.75		4.6
Parietal	5.5		5.2
Occipital	4.5		4.4
G. Height: For. magn. to vertex	4.5		4.8?
Radius—Frontal	4.25		4.7
Parietal	4.25		4.8
Occipital	3.35		4.3
H. Length and breadth	100 to 81.4		81.
I. Length and height	100 to 66.6		?

Not measured with a craniometer.

DISCUSSION.

Professor MARSHALL said that, not having sufficient experience as to the nicer national peculiarities of skulls, he did not attend the meeting

for the purpose of expressing any opinion as to the racial character of the skull now exhibited by Mr. W. Marshall. He could, however, so far point out its chief individual characteristics, as to enable him to appeal to those having more ethnological knowledge than himself for their opinions on the subject. The skull in question, of which a part of the base and upper jaw was wanting, but of which the lower jaw was perfect, appears to be that of a male, of moderate stature and just beyond middle age, and was evidently partially deformed from softening and pressure. The proofs of this deformation were a decided want of lateral symmetry in the two parietal regions, and an imperfect fitting or coaptation of the frontal with the parietal bones along the coronal suture. The various eminences of the skull were only moderately prominent; but the general form of the cranium was good. The frontal bone was very thick, smooth, solid, and heavy; the other parts of the cranium present were less dense, as if they had been more acted on by the fluids of the bog earth in which it had been found. The lower jaw was particularly solid, and the dentine of the teeth, as usual, was stained of a deep brown, or blackish brown colour, also the effect of the bog; whilst the enamel was brilliantly white. The teeth were small, the molars being moderately worn. The external auditory meatuses were small. The skull was apparently of less than the ordinary capacity of existing adult males; but as the base was gone that could not be tested. The adjoined measurements show, amongst other points, that the skull was decidedly, though not extraordinarily, brachycephalic, a conclusion, indeed, easily arrived at by simple inspection only. The measurements, if compared with those given in Dr. Barnard Davis's "*Thesaurus Craniorum*" coincide rather with those of the Anglo-Saxon than those of the British type. The broken calvarium of another skull found with this one, and also exhibited by Mr. W. Marshall, was, however, evidently dolichocephalic, smoother on the surface, and unusually thin all over; and these facts showed what was well known, the occurrence at all known periods, of different forms of crania amongst the same race or stock; and, therefore, the impossibility of trusting to brachycephaly, or dolichocephaly, alone, in determining the belongings of any given cranium. Professor Marshall concluded by handing in the above table of measurements of the more perfect skull.

The PRESIDENT remarked that the skulls exhibited by Mr. Marshall presented the form termed, by Professor Huxley, the "River-bed type," and by himself, the "Mews-lade type." And that, from the appearance, more particularly obvious in one of them, of their having lain embedded to a certain depth in a clayey, or, may be, sandy bottom, as well as from their colour and the absence of any alteration in the consistence of the bone, he should imagine they must have lain at the bottom, or below the peat and not exactly in it. It was probable, therefore, that the individuals perished, perhaps by drowning, when the site of the peat was still submerged.

The President announced that the auditors of the accounts for 1873 had been appointed, viz.:

On behalf of the Council, Mr. F. G. H. Price;

On behalf of the Members, Major S. R. I. Owen.

The meeting then separated.

ANNUAL GENERAL MEETING.

JANUARY 27TH, 1874.

Professor BUSK, F.R.S., *President, in the Chair.*

The minutes of the last Annual Meeting were read and confirmed.

The President appointed as Scrutineers of the Ballot, Mr. R. B. Holt and Dr. J. Campbell, R.N., and declared the Ballot to be then opened.

The Treasurer submitted the Financial Statement, as follows :
(see next page).

Mr. EVANS moved the adoption of the Balance Sheet, which, notwithstanding the uncalled for secession of members, and the numerous losses by death, showed that the Institute was in a satisfactory condition as regarded members, and that its income sufficed to meet its current expenditure. It was, however, to be borne in mind that the Institute, at the time of its formation, had taken over the by no means inconsiderable amount of debts owing by the two societies which were amalgamated in it; and though the amount of this debt had been materially reduced since that time, but little if any reduction had been effected during the past year. He hoped that the President in the course of his address might lay before the Institute some plan of getting rid of this incubus, and trusted that the members would cordially co-operate in effecting so desirable an object.

Mr. F. G. H. Price seconded the adoption of the Report, and the motion was carried.

The Director read the Report of Council for 1873.

REPORT of the COUNCIL of the ANTHROPOLOGICAL INSTITUTE OF
GREAT BRITAIN AND IRELAND for 1873.

THE Institute has held fifteen ordinary meetings during the year, at which the following communications were made :

On the Atlantean Race of Western Europe. By the late J. W. Jackson, Esq.
On the Kojahs of Southern India. By Dr. John Shortt.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.
Statement of Income and Expenditure for the year ending December 31st, 1873.

RECEIPTS.		PAYMENTS.	
£	s. d.	£	s. d.
To Balance, January 1st, 1873:		By Payments on account of Publications:	
In Bank	2153 7 4	Thomas Richards	4300 0 0
In hand	3 16 1	Taylor and Francis	52 4 7
	157 3 5	Lithography	63 18 0
Annual Subscriptions received:		Rent, Office Expenses, etc.:	
Collector	542 0 1	Rent, one year	137 10 0
Secretary	97 11 0	House Sundries	240 13 1
Bank	88 2 0	" Tea and Coffee,	34 11 0
Life Compositions:		Office Sundries	65 4 1
Collector	242 0 0	London Library Subscription	12 6 9
Secretary	21 0 0	Registration	3 0 0
	63 0 0	Salaries and Commissions:	5 5 0
Sales of Books:		Secretary	100 0 0
Longmans	20 6 3	Clerk	67 0 0
"	11 8 6	Collector	39 5 10
Trübner—Journal	31 14 9	Receipt Stamps	2 14 2
Taylor and Francis	45 5 7	Postages: General letters, etc.	19 14 0
Sotheby and Co.	10 8 9	Journal	19 13 10
Office Sales	18 12 0	Stationery, Meetings, etc.:	
	10 17 0	Stationery	5 19 11
	116 18 1	Reporting	6 16 6
		Advertisements	45 3 0
		Books for Library	5 6 6
		Balances: in Bank	63 5 11
		In hand	113 12 5
	21094 14 7		10 0 0
			123 12 5
			21094 14 7

We have examined the above account and find it correct,
 SAMUEL R. I. OWEN, Major,
 F. G. H. PRICE.

- On the Primordial Inhabitants of Brazil. By M. Henriques Gerber and Captain R. F. Burton.
- On the Inhabitants of Car Nicobar. By W. L. Distant, Esq.
- On the Native Tribes of Tasmania and the causes which led to their Extirpation. By R. Calder, Esq.
- On the Macas Indians. By Sir John Lubbock, Bart., M.P.
- On the Relation of the Parish Boundaries in the South East of England to Great Physical Features, particularly to the Chalk Escarpment. By W. Topley, Esq.
- On the Looshai Indians. By Dr. A. Campbell.
- On Implements and Pottery from Canada. By Sir Duncan Gibb, Bart., M.D.
- On Ventnor Flints. By Hodder M. Westropp, Esq.
- On the Concurrent Contemporaneous Progress of Renovation and Waste in Animal Frames, and the extent to which such operations are controllable by artificial means. By George Harris, Esq.
- On Theories regarding Intellect and Instinct; with an attempt to deduce a satisfactory conclusion therefrom. By George Harris, Esq.
- On the collection of Peruvian Skulls lately received from Mr. Consul Hutchinson. By Professor George Busk, F.R.S.
- On the same and on further collections, together with Pottery received from Mr. Consul Hutchinson. By Dr. Barnard Davis, F.R.S.
- On a Human Skull from Birkdale, Southport. (Communicated by the President.) By T. Mellard Reade, Esq.
- On the Religious Beliefs of the Ojibois Indians of Mannitoba and Lake Winnepeg. By Dr. A. P. Reid.
- On Rock Inscriptions in Brazil. By J. Whitfield, Esq.
- On the Danish Aspect of the local nomenclature of Cleveland. By the Rev. J. C. Atkinson.
- Remarks about the consecration of the Serpent as an emblem but not an object of Worship among the intelligent Druids. By James Hutchings, Esq.
- On Eastern Coolie Labour. By W. L. Distant, Esq.
- On the Westerly Drifting of Nomads. Part X. By H. H. Howorth, Esq.
- On the Egyptian Colony and Language in the Caucasus. By Hyde Clarke, Esq.
- On a ready method of measuring the cubic capacity of Skulls. By Professor Busk.
- On a Mural Inscription in large Samaritan Characters from Gaza. By Rev. Dunbar I. Heath.
- Strictures on Darwinism. Part II. The Extinction of Types. By H. H. Howorth, Esq.
- On the Ainos. By Lieut. C. S. Holland, R.N.
- Account of an Interview with a tribe of Bushmans in South Africa. By G. W. Stow, Esq.
- Specimen of Native Australian Languages. By A. Mackenzie, Esq.
- A brief account of Three Microcephales. By Dr John Shortt.
- On a Patoo-patoo from New Zealand. By Sir Duncan Gibb, Bart., M.D.
- The Healing Art in the North of Scotland in the olden time. By the Rev. Walter Gregor.
- On a Hypogeum at Valaquoie, I. of Uist. By A. Carmichael, Esq.
- On Heathen Ceremonies still practised in Livonia. By the Baron de Bogouschefsky.
- On the Westerly Drifting of Nomades, from the 15th to the 19th century. Part XI. The Bulgarians. By H. H. Howorth, Esq.
- On a method of collecting Anthropological Statistics from Schools, Universities, and other large bodies. By Francis Galton, Esq.
- Explorations amongst Ancient Burial Grounds, chiefly on the sea coast valleys of Peru. Part I. By Mr. Consul T. J. Hutchinson.
- Report on the Papers read in the Anthropological Department of the British Association at the Bradford meeting. By F. W. Rudler, Esq.
- The Siah Posh Kafirs, a hitherto mysterious race, inhabiting Kafiristan on the Hindu Kush, and supposed to be a Macedonian colony. By Dr. G. W. Leitner.

On the Hieroglyphics of Easter Island. By J. Park Harrison, Esq.
 On the Exploration of Cave Ha, near Giggleswick, Settle, Yorkshire. By Professor T. McKenny Hughes.

On the occurrence of Felstone Implements of the Le Moustier type in Pontnewydd Cave, near St. Asaph. By Professor Hughes and Rev. D. R. Thomas.

On a Fibula of unusual formation, discovered in Victoria Cave, Settle. By Professor George Busk, F.R.S.

Ethnological Data from the Annals of the Elder Han. Part I. Translated by A. Wylie, Esq., of Shanghai; with an introduction by H. H. Howorth, Esq.

On the Westerly Drifting of Nomades, from the 5th to 19th century, Part XII. The Huns. By H. H. Howorth, Esq.

Note on Implements from St. Brieuc. By Mons. V. Hénau.

Twenty-two ordinary members have been elected during the year.

J. H. Lamprey, Esq., has been elected a corresponding member.

The following local secretaries have been appointed since January :—

Samuel E. Peal, Esq., for Assam; Dr. A. P. Reid, for Halifax, Nova Scotia; George Hartley, Esq., H.M. Consul, for Fernando Po; Edwyn C. Reed, Esq., for Santiago de Chile.

Thirty-nine ordinary members, and one honorary member, have withdrawn since the last anniversary.

The Institute has lost, through death, Mr. Cowell Stepney, Mr. A. C. Brebner, Mr. J. W. Flower, Mr. W. Jones, Mr. T. S. Davy, Mr. Camden Hotten, Sir David Salomons, Professor W. N. Chipperfield, Dr. Thurnam, Mr. Oust Atkinson; one honorary member, Professor Agassiz; and one local secretary, Dr. Alexis Fedtschenko, for Moscow.

By deaths and withdrawals, therefore, the number of members of the Institute has been reduced by twenty-seven. The Council regret this very much, and still more regret the cause to which several of the withdrawals are attributable, viz., the formation of a new society by some of the gentlemen who were in the minority upon the question of election of President for last year. It is an unfortunate result attending any such secession, that it induces many to decline to attach themselves to either side of the question at issue, and to withdraw their aid from the common object of both parties. Hence, it appears to your Council that such a secession should not take place lightly, or unless a grave question of principle is involved. They fail to see in the present instance any justification whatever for the attempt to undo the beneficial work accomplished three years ago by the union of the two former societies in this Institute. The question, upon which a majority of two to one in the Council, and three to one in the Annual Meeting, decided against the gentlemen who have since formed themselves into a separate society, was entirely the personal one who should be President; and on such a question the minority should have accepted the decision.

of the majority. An attempt has been made to justify the secession by raising the ghost of the discussions between the Anthropological and Ethnological Societies. Nothing could be more unwarranted by facts. The Anthropological Institute has, from the moment of its constitution, dealt with every question before it in the most comprehensive sense; it has not consciously neglected any branch of inquiry within the range of the science of Man; and every paper submitted to the Council has been judged and dealt with on its own merits, without reference to the question whether it belongs to a particular branch of the science, or deals with it on the theories of a particular school. The system of submitting every paper to two referees, carefully selected by the Council—and, if they differ, to a third—ensures an impartial and deliberate judgment upon its merits.

The new society was originally intended to be called Anthropological Association, a name which is quite unobjectionable; but it was finally announced as the London Anthropological Society, a name closely resembling that of the Anthropological Society of London, merged in this Institute. The Director was requested to point out to Dr. Charnock, the President, and Mr. Wake, the Vice-President of the new Society—who both signed the agreement for union in 1871—and Mr. Lewis, the Secretary, the inconvenience that would result from their adopting this name, but the Council regret that the representation was without effect.

The Library and Museum have received several valuable accessions during the year. Notably the collection of Peruvian skulls, pottery, and other objects, contributed by Consul Hutchinson, a collection so numerous that from it the President of the Institute was enabled, after selecting a sufficient number of typical specimens for permanent preservation in our own Museum, to present to the University Museums of Oxford, Cambridge, and Edinburgh, a similar set, and to hand over about a hundred specimens to the Royal College of Surgeons for preservation in their Hunterian Museum, where it is accessible at all times to the public at large. The following are the names of donors:—

The Rev. James Greaves; Academy of Sciences, Amsterdam; W. Topley, Esq.; James Burns, Esq., Palermo Institute; Editor *La Revue Scientifique*; Editor *Food Journal*; Editor *Zeitschrift für Ethnologie*; Imperial Society of Naturalists, Moscow; Royal Society; Lewis H. Morgan, Esq.; East India Association; Anthropological Society of Paris; Professor Ecker; Royal United Service Institution; Canadian Institute; Society of Antiquaries of London; Editor of the *Spiritualist*; Ethnographical Society of Paris; Dr. P. Mantegazza; Geologists' Association; Dr. G. W. Leitner; Consul T. J. Hutchinson; Dr. Robert Peel; Asiatic Society of Bengal; Dr. Paul Broca; Royal Academy of Sciences, Belgium; M. L. A. J. Quételet; M. J. C. Honzeau; Anthropological Society of Vienna; Royal Geographical

Society; Dr. Protheroe Smith; Social Science Association; Royal Asiatic Society, London; Inspector-General of Bengal; Inspector-General of New Zealand; Society of Biblical Archaeology; Royal Society of Tasmania; Morton Allport, Esq.; M. Léon de Rosny; Dr J. Oppert; M. C. De Labarthe; Royal Institution of Cornwall; Literary and Philosophical Society of Liverpool; Prof. Com. Luigi Chalón; Imperial Academy of Sciences, Vienna; Royal University of Christiania; M. A. Kier; Editor of *Nature*; J. L. Laird, Esq.; American Philosophical Society; Editor of *Cosmos*; Lieut. Holland; Winwood Reade, Esq.; Philosophical Society of Glasgow; Gustaf von Düben; Imperial Academy of Sciences, St. Petersburg; Royal College of Surgeons; Rev. Dunbar I. Heath; Royal Society of Copenhagen; Dr. Bleek; The Executors of the late Henry Christy, Esq.; Professor Schaaffhausen; Théodore Wechniakoff; Hungarian Academy; Geological Society of Glasgow; M. Adrien Anelin; The Government of India; Colonel W. E. Marshall; Sir George Campbell; M. Igino Cocchi; Rev. W. Harpley; Major S. R. I. Owen; Clifford Smith, Esq.; Edwyn C. Reed, Esq.; Mann Society; M. Louis Roussellet; Rev. M. P. Clifford, D.D.; Dr. J. Simms; J. G. Avery, Esq.; Messrs. Hall and Co.; Dr. Hoffman; Captain S. P. Oliver; George St. Clair, Esq.; John E. Price, Esq.; Royal Society of Literature.

A new catalogue of the Library has been prepared; but, before sending it to press, the Council wish to offer an opportunity to any member of the Institute to contribute a copy of any work he may have written on anthropological subjects not as yet in the Library.

Registration.—The Council have decided, at an early date, to summon a special meeting, to adopt such alterations in the regulations of the Institute as may appear to be necessary to obtain for it the advantages of incorporation, under a licence from the Board of Trade. They are, briefly, to hold property in its corporate name, to sue and be sued as a corporation, and to limit the liability of every member to his subscription for the current year. These will commend themselves to the good sense and business habits of the members, and the Council anticipate no opposition to the proposal.

Journal.—Three parts of the Journal have been issued since the last annual meeting; and the Council believe that the members will admit that, for scientific value and completeness of illustration, the publications of the year are such as to maintain the reputation of the Institute. Their desire is, while maintaining such due regard to economy as will admit of the gradual diminution of the debts of the Institute, to supply the members with publications of real merit and permanent value. They will rejoice when the time comes that the complete extinction of the debt sets them free to devote the whole available income of the Institute for this purpose. That object is sadly delayed by such dissensions and secessions as marked the commencement of the present year; and the Council cannot but urge on all who are interested in the real progress of anthropological science to strengthen their hands by obtaining the accession of like-minded persons as contributing members. The

experience of the past has fully proved that the co-existence of two societies with the same object, appealing to a number of supporters, which is necessarily limited, must weaken both; and the Council of the Institute are disposed to waste no time in idle discussion, but to devote all their energies to render the Institute the full benefit of the broad basis and abundant scientific resources that it now has. When incorporated, as they shortly hope it will be, and free of debt—which cannot too soon follow—the rest will easily be attainable. But the Council must beg of the members, generally, assistance and support to effect these objects.

The Council have appointed the following special committees:—

Psychological Committee—Mr. Francis Galton, F.R.S. (Chairman); Dr. John Beddoe, F.R.S.; Mr. David Forbes, F.R.S.; Sir John Lubbock, Bart., F.R.S.; Mr. E. Burnet Tylor, F.R.S.; Mr. A. R. Wallace, F.L.S.; Mr. George Harris, F.S.A.

Physical Characters of Mankind—Professor George Busk, President (Chairman); Dr. Barnard Davis, F.R.S.; Mr. Luke Burke; Professor Rolleston, F.R.S.; Dr. A. Campbell.

Præhistoric Archaeology—Colonel A. Lane Fox (Chairman); Mr. A. W. Franks; Mr. E. W. Brabrook; Mr. Hyde Clarke; Mr. John Evans; Mr. F. G. H. Price; Sir John Lubbock, Bart.

Descriptive Ethnography—Mr. Clements R. Markham (Chairman); Mr. Bates; Colonel Lane Fox; Mr. F. G. H. Price; Mr. Hyde Clarke; Mr. H. Howorth; Mr. F. W. Rudler; Mr. J. E. Price.

Sir DUNCAN GIBB had much pleasure in moving the adoption of the Report of the Council, which on the whole was very satisfactory, and gave a good account of solid work done by the Institute during the past twelve months. Whilst he regretted the loss of so many members by death and by resignation, yet on the whole, after deducting the accessions, he was glad to learn that the actual number was not more than some twenty-seven altogether. He had feared that it would have been much more, and this, therefore, was better than he had expected. Regarding the schism that had existed this time last year, mentioned in the Report, although he was one of the minority, and voted as his conscience dictated, yet he had made up his mind beforehand to accept the results whatever they were, and to be contented with the logic of facts; he had not the remotest idea at the time of seceding from the Institute, and regretted that others had done so. When the two old societies were amalgamated he determined to give his best energies in helping to make the Institute a strong, powerful body, and he felt it would

have been an injury to the science promoted by the Institute to leave it because there had been a difference of opinion on the question of a house list, which, after all, was not a matter of very great consequence. He had great faith in the future of the Institute, and had no doubt in time it would become a powerful and influential body. Concerning the invitation from the Commissioners of the International Exhibition, he hoped that the Institute would accept it, and do all in its power to aid in getting up an Ethnological Collection, and that individual members would lend their co-operation in sending various objects to add to its value and success.

The motion having been seconded by Mr. W. L. Distant,

Mr. G. HARRIS said he should like much to know what was being done respecting the psychological committee, of which he was a member. Only one meeting had been summoned since the 7th of March, when a very satisfactory programme, as regards the proceedings, was arranged. Several gentlemen had been induced to join the institute on the appointment of the committee, from an expectation that something important would result from its labours. Some of them, one being a member of the committee, had written strongly to him (Mr. Harris) on the subject, complaining that the whole thing was a mockery and a delusion—a mere inducement held out to lead persons to join the institute. It was very unpleasant to receive such communications, and still more so to feel that the complaints made were deserved. He (Mr. Harris) would be glad to receive information that would enable him to give a satisfactory reply, which he was unable to do at present.

After further remarks, from Mr. Charlesworth and the Director, who, in the absence of Mr. Galton, Chairman of the Psychological Committee, gave some account of what that Committee had done, the motion was put and carried unanimously.

The PRESIDENT, on rising to deliver the Anniversary Address, took the opportunity of premising some observations on the present financial state of the Institute, as set forth in the Report of the Council and Auditors.

That statement showed that, although the income of the Institute was adequate to meet the current expenditure, it was made so by the strictest economy, which could only be exercised by curtailing to the utmost possible limits the expenses attending the publication of the Journal; the interest and utility of which would be much enhanced were it possible to devote larger funds to the purpose.

It was consequently obvious that so long as the income of the

Institute remained as it was, very little could be done towards the redemption of the remaining portion of the debt with which the Institute has been burdened since the amalgamation of the two societies. Although, owing to the strenuous efforts that had been made by the Council, this debt had been considerably reduced from its original amount, it had appeared to the Council that the time had arrived, when a final and united effort should be made to wipe off what remained of it, amounting to about £700, upon part of which interest was charged, involving an annual expenditure of about £20—a serious call upon a income already barely sufficient for the indispensable requirements of the Institute.

After anxious deliberation on the matter, the Council had come to the conclusion that the best, if not the only, mode of meeting the exigency was by means of a voluntary subscription amongst the members of the Institute, each contributing what he might think fit. It might be remarked that as the debt was about equal to a year's income, if each member thought fit to double his subscription for the present year, the entire debt would at once be extinguished. But as this was perhaps more than could be expected, the President announced that a sum of upwards of £200 had already been subscribed by Members of the Council, on the understanding that the remaining amount of £500, or the greater part of it, should be raised in addition by the members of the Institute, or by others who, though not members at present, may feel an interest in the science. He added an earnest hope that all members of the Institute would also endeavour to secure its increased prosperity and usefulness in future by the introduction of new and active members.

It was needless, he thought, to remark upon the certainty of renewed vitality and activity which would thus be communicated to the Institute, were it once relieved from a heavy incubus and enabled to devote its augmented funds to their legitimate purpose—the promotion of the Science of Man in all its multifarious branches.

He concluded by stating that a list of subscriptions to the "Redemption Fund," would lie at the office of the Institute, and that Mr. Collingwood would be authorised to receive the names of those who were willing to contribute to it.

The PRESIDENT'S Address.

GENTLEMEN,—Although I am unable to report any very remarkable event or advance in anthropological knowledge during the year 1873, nevertheless during that period many valuable and interesting communications on various subjects connected

with the objects of the Institute have appeared either in Journals or Proceedings of different societies, or in separate works.

To the more interesting of such of these contributions to science as have chanced to come under my notice, for I by no means pretend to give more than a small part of the anthropological literature of the year, I will briefly advert, with a view of marking out, though but in a superficial manner, the perhaps slow, but yet sure, advances that have been made in the different branches of the so-called "Science of Man."

In doing this it will perhaps be convenient to take the various subjects which come under our cognizance here, under the different heads of—

1. Ethnography, including under that term the languages, manners, customs and psychological peculiarities of different populations.

2. Of Prehistoric or Priscan Archæology; and

3. Of Descriptive Anthropology proper, including all points connected with the physical nature, conformation and relations with respect to the rest of the animal kingdom, of man.

Commencing as is fit with the record of our own labours contained in the Journal of the Institute, I would notice under the first of the above heads:—

1. A paper by Mr. Distant on the inhabitants of Car Nicobar, in which we have an interesting account from an eye witness of the manners and customs, and to a certain extent of the moral *status* of apparently a very primitive and simple race, which would seem to possess many of the virtues, and, so far as Mr. Distant's account extends, few of the vices of self-termed civilized man.

The chastity, honesty, cleanliness, and kindly bearing towards each other of the untutored natives of Car Nicobar may well be held up for imitation to ourselves; and it is to be hoped they may long escape the evils and miseries attending most attempts at the introduction of civilization.

2. A very different picture of savage life, however, is presented in Mr. R. Calder's notice of the now extinct native tribes of Tasmania, who, after the endurance of grievous wrongs and sufferings have happily for themselves been entirely exterminated.

In Sir John Lubbock's notice of the Macas Indians we are furnished with an account of the curious mode in which the heads of deceased chieftains and their wives have been converted into a sort of idol, whose worship, however, appears to consist more in abuse than in veneration.

Dr. Campbell's observations on the Looshais or Kookies with whom we were, not very long since, in hostile collision, forms, as he remarks, an appropriate continuation of Mr. St. John's paper on the Wild Tribes of Northern Arracan, and of Major Godwin-Austen's communications on the Garrows and Khasias. From this interesting paper, as from Mr. Distant's, it would seem that upon the whole a people deemed by us uncivilised and savage may yet be in possession of all that makes life happy and contented, and present moral and industrial qualities of no mean order, and we cannot but cordially concur in the hope, expressed by Major Macdonald, that contact with us will not degrade the Howlongs into Chukmaks or Tipperakes. At present, according to that writer, "no happier people can be found in the world."

Dr. Reid's remarks on the Religious Belief of the Ojibbways or Sauteux Indians around Lake Winnepeg contain much interesting information connected more especially with the Indian belief respecting a future state. It has been supposed by some, that were all European and foreign immigration stopped, the population of America, by a process of natural selection, it is to be presumed, would, in course of time, relapse or advance, as the case might be, into the Red Indian type; and with reference to this notion it is curious to remark that, even now in the full glare of modern civilization and in the midst, as we are told, of the most universally educated people in the world absurd beliefs are largely popular which may be traced to Indian parentage—such, for instance, as the fancies of the spiritualists; and, curiously enough that the clever juggling tricks of the Davenport Brothers, whose miraculous nature at one time found believers even amongst ourselves, and may do now for what I know, appear to have been originally practised by the Indian tribes.

Herr Von Brandt's paper on the Ainos, of which a translation is given in the Journal of the Institute, conveys much

information concerning the interesting apparently aboriginal inhabitants of Japan ; of whom, however, Lieut. Holland's communication gives a far more complete account :—the best in fact, so far as I am aware, that has as yet been published of the manners and habits of the Ainos. To Lieut. Holland, moreover, we have been indebted for the exhibition of a valuable series of original photographs of the people, and of various articles of Aino manufacture.

The subject was further illustrated on the same occasion by a curious Japanese roll of coloured drawings illustrating their national manners and customs, exhibited by Mr. Franks.

Mr. Howorth's tenth and eleventh communications on the westerly drifting of the Nomades, are devoted principally to the subject of the connection between the Alans and Lesghs.

Connected in some measure with the same part of the world is Mr. Hyde Clarke's paper on the traces of an Egyptian colony in the Caucasus. His remarks are directed principally to pointing out what he conceives to be affinities between the Ude language and the Coptic. Of physical characteristics he says nothing, and if it were true that Sesostriis left a colony of Nubians behind him, it is clear that traces of a language may remain long after all those of blood have disappeared.

Mr. Howorth's paper, entitled "Strictures on Darwinism," is devoted chiefly to the fact that races mainly of domesticated or semi-domesticated animals have at various times been replaced by other races introduced by the agency or in the company of man, *ab externo* ; or, in the case of wild animals, when by changes in the physical conditions a region has become unfitted to maintain its original denizens.

It is clear, however, as it appears to me, that such instances as these have but a very distant relation to the fundamental doctrine that natural selection is at any rate one of the causes by which existing species have been produced from precedent forms. Consequently the considerations derived from these instances can hardly be regarded as applicable to that part of the Darwinian hypothesis.

To take an extreme instance, surely no one would contend that the sheep dog is an example of the transformation of the

wolf into the dog by means of natural or any other selection, except artificial, any more than he would cite the native-born colonists of Australia or America as showing the metamorphoses of the aboriginal into the European type.

Of course Mr. Howorth says nothing so absurd as this, but it appears to me that his argument, if stretched to the utmost, would tend to such an extravagant result.

The displacement of one race by another, either in consequence of human agency or by the operation of natural causes acting in what may be termed brief periods of geologic time, has nothing to do with the hypothesis of "Natural Selection" as an agent in the origination of species.

In a communication in the "*Archiv für Anthropologie*," Dr. Paul Langerhaus gives us an ethnographical account of the present inhabitants of the Holy Land, illustrated by numerous and highly-expressive woodcut figures taken from photographs. For notwithstanding the prohibition in the Koran against the making of any representation of the human figure, Dr. Langerhaus appears to have met with no hindrance to his taking as many photographs as he wished. The subjects were for the most part obtained at Jerusalem, which, according to him, is a great place of resort for nearly all the Western Asiatic and East African races, and consequently an excellent site for the ethnographical student.

Amongst other nations he found examples of natives of Armenia and Kurdistan, together with Copts, negroes from Dafur, and some individuals from other far distant tribes of Soudan. Of these he had already published an account in the "*Zeitschrift für Ethnologie*," and the present communication is limited entirely to the Arab tribes of Palestine.

Amongst separate works on ethnographical subjects, one of the most important that has appeared for many years is the "*Descriptive Ethnology of Bengal*," compiled by Colonel E. T. Dalton, C.S.I. Commissioner of Chutia, Nagpore.

The work has been compiled from the researches of Dr. Simpson, Dr. R. Brown, and the Messrs. Peppé, who were sent by Government order into the wilds of Assam, Munipore, and Cattack to describe and photograph the specimens of savage humanity there to be met with, apparently in a still very un-

sophisticated state. The result of the united labours of these observers under the able editorship of Colonel Dalton is a 4to. volume of 350 pp., illustrated with 37 plates lithographed from the original photographs under the superintendence of Dr. G. Wallich.

In this volume the most interesting information will be found concerning the physical character, manners, customs, and languages more especially of the Indo-Chinese tribes of the Assam;—and nowhere, to borrow the words of a notice of this volume in the *Times*, “will there be found such a mass of elegant and charming descriptions of primitive customs, dances, songs, and beliefs as Colonel Dalton has here put upon record.”

Nor should I omit to notice the remarkably interesting account, recently published, of Dr. Schweinfurt's travels in Central Africa, in which will be found numerous ethnological observations and facts of very great value. The additional knowledge afforded us by Dr. Schweinfurt respecting the so-termed pigmy races of the interior of the African Continent is very acceptable. From what he states, taken in conjunction with the previous observations of Du Chaillu and other travellers, it appears to be by no means improbable that the dwarf race of brown negroes, of which Dr. Schweinfurt had an opportunity of examining a few specimens from the country south of the Niam-Niam Kingdom, are in relation on the one hand with the dwarf Bushmen race of South Africa and with the similarly small race noticed by Du Chaillu in the west.

There seems to be little reason to doubt that it is this race that gave rise to the ancient legends of a nation of pigmies inhabiting the interior of Africa alluded to by Homer, further mentioned by Herodotus, and positively asserted to exist by Aristotle.

2. Under the head of “Prehistoric or Priscan Archæology” several interesting communications have been made at meetings of the Institute, whilst numerous papers on this highly popular branch of Anthropological inquiry have appeared elsewhere.

I might, more particularly, notice amongst our productions one by Sir Duncan Gibb “On Stone Implements and Fragments of Pottery from Canada.” The brief remarks by Dr. Barnard

Davis "On Specimens of Ancient Peruvian Pottery." The notice by Mr. Whitfield of mysterious rock inscriptions in Brazil, draws attention, as I have before taken occasion to remark, to the apparent resemblance of those inscriptions to rock-markings of a similar nature in Andalusia.

From Mr. A. Carmichael we have an interesting account of a "Hypogæum" in the Island of Uist, containing bones of the deer, ox, swine, and sheep—which were mostly splintered for the extraction of the marrow.

Under this head, I would also refer to a short communication from Mr. F. Calvert, "On the probable Existence of Man during the Miocene period," if only to explain that the grounds adduced by Mr. Calvert for the supposed existence of the human race in the Miocene period appear to me to be extremely slight.

The main fact of which we are informed, upon which Mr. Calvert appears to rely, is the circumstance that a flint flake and some bones of animals, apparently fractured by the hand of man, were found in various parts of an inland cliff from the face of which Mr. Calvert had himself extracted bones and teeth of the *Dinotherium* and shells of a species of *Melania*; the former of which does not occur later than the Miocene period; whilst the latter, though still existing, may be traced back to the same epoch.

The most curious part of Mr. Calvert's communication, however, refers to the discovery of engraved figures on a fragment of bone regarded by him as belonging to *Dinotherium*. I am not aware upon what evidence this determination rests; for, although from the figures sent by Mr. Calvert there can be no doubt of his having found the tooth of a *Dinotherium* in or near the same locality, it does not follow, without further evidence, that the bone he mentions should necessarily belong to the same extinct species. The presumption is in favour of regarding these undoubted miocene fossils as in reality extraneous to the actual deposit in which they occurred, and of viewing the latter consequently as a *remanié* formation.

It is nevertheless much to be desired that Mr. F. Calvert should continue his important researches in the Troad.

In the very useful periodical *Matériaux pour l'Histoire primi-*

tive et naturelle de l'Homme," we find in the volume for 1873, a paper by Dr. Gross on Lacustrine Dwellings on the Lake of Bienne, which contains much valuable matter, and forms a considerable addition to our previous knowledge of that locality. One additional fact is the discovery of Bronze and Iron Implements in one or more of the stations on that Lake, which would thus, as remarked by Dr. Gross, seem to afford evidence of its having been successively tenanted, at different parts of its circumference, by populations belonging to the Stone, Bronze, and Iron ages. It thus affords as it were a link between the Lakes of Eastern Switzerland, in which the habitations appear to belong almost exclusively to the Stone age, and those in the Western Cantons in which indications of the Bronze period seem to predominate. Whilst at the same time the Lake of Bienne connects both of these with the later Iron period.

Amongst other points noticed by Dr. Gross is the existence amongst the stone implements from one of the stations, of several composed of nephrite and others of jade of large size. These minerals, as he points out, are of great interest, seeing that neither of them are indigenous, but must have been introduced either in the rude or manufactured condition from the far East—the former occurring native, as it would appear, only in Turkestan and Siberia in the neighbourhood of the Baikal Lake, whilst in Europe and Asia, jadeite is found only in China in the Province of Kiang, &c. Dr. Gross deems it impossible that at that period these articles should have been introduced by way of commerce, and supposes that they must have been brought by tribes that had migrated slowly westwards in the long course of time. It is, however, allowable to surmise that a few articles of such valuable materials may have been transmitted from hand to hand, though not in the way of any regular commerce.

In the same *Journal*, we also find accounts of the Exploration of a large Dolmen or Passage-Tumulus of the Bronze age, at Plougoumelen in Brittany by M. Gall; and of certain dolmens of the same age, in the Department of the Lozère, by M. de Malafosse.

A large Dolmen has also been explored by MM. Retzius and Montelius at Karleby in Sweden, in which were discovered no

less than eighty skeletons of adults and infants. The skulls unfortunately were mostly crushed, only five being found whose shape could be determined. Four of these were dolichocephalic .710—.757, and one highly brachycephalic .844, like those found in the *tumuli* of Borreby, &c.

Passing further south, it should be recorded that M. Rivière has diligently pursued his exploration in the Ossiferous Caves in the neighbourhood of Mentone, and has been rewarded by the discovery of a second, and, I believe, of a third human skeleton under the same conditions as those which attended the discovery of the "Mentone Skeleton" now in the Paris Museum, whilst his collection of specimens of human art in Flint, Bone, and Shells has been vastly increased. We shall look forward with much interest for an account of the results of Dr. Rivière's continued labours.

M. A. Locard* notices the discovery of human Remains in the Ossiferous Breccia of Corsica accompanied by abundance of bones of *Lagomys corsicanus*, a species of Pike or Tailless Hare, now extinct, and belonging to a genus strongly indicative of an extremely rigorous climate, modern representatives being found only at high altitudes in Siberia, a country also in which it may be observed the Argali closely resembles, if it be not identical with, the Mouflon (*Ovis Musimon*) of Corsica, whose remains were also found in the same breccia with the human bones.

Dr. Hamy has furnished in the *Comptes rendus* a valuable communication on the subject of the age of the so-termed Fossil human remains found in the Coral—or Calcareous tufa of Guadeloupe. A very perfect skeleton in its matrix is, as is well known, in the British Museum. In a block of the same tufa in the Paris Museum, Dr. Hamy has discovered beneath the lower jaw of the skeleton, and amongst fragments of ribs and other bones, a jade amulet twenty millimeters in length by seventeen wide, and nine thick, representing roughly the figure of a species of Batrachian, and perforated so as to show that it was intended to be worn as an amulet around the neck. As M. Du Tertre† de-

* "Comptes Rendus," Feb. 16th, 1873.

† R. P. Du Tertre, "Hist. Génér. des Antilles," 1667.

scribes Carib ornaments, composed of a similar green stone, "which had the form of a Frog," it is thus clearly proved that the Guadeloupe skeleton belongs to the Carib Epoch, as was supposed by M. Ernouf. (*Ann. du Mus.*, t. v, p. 404, 1805).

M. P. Gervais (*Journal de Zoologie*) notices the occurrence in the Argentine Republic of human remains associated with bones of extinct animals.

In our own country one or two occurrences of the same kind have also been described. One of these was the discovery by Professor T. McK. Hughes of a human tooth, to all appearance of the same age as those of the Bear and Hyena, in the Cave of Pontnewydd, in North Wales, which is somewhat remarkable on account of its unusually large size. A second instance is that of a fragment of human fibula met with at the entrance of the Victoria Cave near Settle in Yorkshire, of which I had the honour of giving a brief account at a late meeting of the Institute. The conditions under which this relic was discovered have led Mr. Tiddeman and Professor Boyd Dawkins, though not, I believe, through exactly the same mode of reasoning, to conclude that the owner of the bone must have lived in or before the Glacial period. As I hope this part of the subject will be amply discussed here by those whose geological knowledge will enable them to speak authoritatively upon it, I will now only remark that, should the age of the bone really prove as ancient as there is every reason to believe it is, the Victoria relic will represent one of the most ancient specimens of humanity yet brought to light.

Assuming its remote antiquity, this fragment of pre-Glacial humanity, so far as it goes, affords no evidence that the human frame differed from that of the present day. By a curious coincidence the fibula of the first discovered Mentone Skeleton, which, though far more recent in all probability than the Victoria Cave specimen, is still of very respectable antiquity, possesses unusual characters in common with it, and it might thence, perhaps, have been fancied that priscean man had at any rate far clumsier legs than his modern representatives, but we do not find that this is the case, for the discovery in the Museum of the College of Surgeons of a recent bone very nearly

as thick as that from the Victoria Cave suffices to prove that both it and the *fibula* of the Mentone Skeleton may be only exceptional cases, and cannot be regarded as indicative of any important difference of conformation between ancient and modern man.

In a paper on "The Rein-deer Station of Veyrier," M. Rüttimeyer expresses the opinion that the Rein-deer and Horse might have been both domesticated in that locality. It is at any rate a remarkable circumstance that the rein-deer should have inhabited an alpine district in company with the red deer, ibex, and chamois, since in nature these species are never found associated with it. It would appear probable therefore, as M. Rüttimeyer suggests, that the reindeer was introduced by human agency.

On the occasion of the exhibition of a large number of ancient Peruvian skulls, forwarded to the Institute by Mr. Consul Hutchinson last April, a small collection of ancient Peruvian works of art was also exhibited, amongst which were several specimens of pottery from the ancient "huacas," or burial mounds. Some of these were ornamented with figures of the human form or face. With relation to fictile ware of this kind, we find a communication, by M. C. Rau, in the *Archiv für Anthropologie*, drawing attention more particularly to the circumstance that similarly ornamented vessels are found also in Europe, where they have attracted the attention of Archaeologists under the name of Face-urns or *Gesichtsurnen*. M. Rau proposes to divide this class of pottery into two kinds, according as the human face is placed on the body of the vessel or on its neck, or in some cases on the lid or cover. He remarks that in the European instances these Urns appear in all cases to have been cinerary, whilst, on the contrary, those found in America were more probably water-vessels, which, after the death of the owner were placed in his tomb.

As in Europe, so also in America, the Face-urns may be divided into three classes:—

1. Those having the human face on the body of the vessel.
2. Those in which the human head is placed in the neck of the urn, of which it forms the mouth.

3. Those in which the entire vessel is constituted of a crouching or kneeling figure.

Vessels of this kind have also been found, it would seem, extensively in North America as well as in the Peruvian tombs, affording an additional proof, if any were needed, of the community of customs, art, and, probably, therefore, of race, which must at one time have pervaded the entire Continent.

M. Adrien Arcelin has published a brief memoir* containing much interesting matter respecting the relics of the pre-historic inhabitants of the Nile Valley.

The fact that stone implements were occasionally found in Mummy cases has been known since the time of Champollion, and M. Passalacqua has described two beautifully finished implements from the Necropolis at Memphis, whilst Lepsius records the discovery of flint-knives in a tomb situated north-east of the Great Pyramid, the age of which is given as about 3000 A.C. But notwithstanding this the subject of pre-historic remains in Egypt does not appear, until very lately, to have attracted the critical attention of archaeologists.

The first endeavours in this direction were made by M. Arcelin, in conjunction with M. le Vicomte Murard, in 1868-9. Their explorations were made with the special view of ascertaining whether indications of a pre-historic Stone Age of the same kind, as those which have been afforded in all parts of Europe, were to be met with in the Valley of the Nile.

The importance of such a discovery in Egypt in an ethnological point of view could hardly be overrated.

The labours of MM. Arcelin and Murard were soon rewarded by the discovery of abundance of flint implements, more especially in the neighbourhood of Gizeh, Sacquarrah, Thebes, &c.

The implements were found either on the high plateau of the Valley or beneath the fluviatile deposits of the River above the pliocene or quaternary beds. The modern deposits of the Nile afforded not a single specimen, nor were researches in the ruins of the ancient cities, nor in the disturbed ground where excavations had been made in the exploration of monuments, more

* "*L'Age de Pierre et la Classification Préhistorique d'après les sources Egyptiennes*," 1874.

successful. In fact no trace of stone implements was discovered by MM. Arcelin and Murard in inhabited sites belonging to the historic period. Whence they conclude that implements of that nature have not been in use since the historic epoch, and that the beds containing them in the lower part of the valley must be sought for at a very great depth beneath the Nile deposits. Elsewhere, they are found only at the extreme verge of the fluviatile beds where they thin out towards the desert.

But this appears to be hardly in accordance with the previous discoveries, above alluded to, and with those of M. Rossellini and Prof. Lepsius, who met with flint implements in Mummy cases and Tombs. Nor is it to be reconciled with the subsequent finds by MM. Hamy and Lenormant, who met with a very extensive collection of knives (flakes), cores, and rude implements, of the same character as found at Moustier, in the neighbourhood of Biban-el-Molouk and at Deir-el-Bahari. The same observers, encouraged by these and other discoveries, pursued their search for stone implements with renewed zeal, which was followed by the discovery opposite Memphis of numerous flint flakes, glazed from their having long lain in the sand.

M. Arcelin's discussion of the objections raised by Prof. Lepsius and M. Chabas against the received doctrine of there having been distinct ages of Stone, Bronze, and Iron, is well worthy of perusal.

CRANIOLOGY AND DESCRIPTIVE ANTHROPOLOGY.

In the usually fertile and apparently facile field of craniography and craniometry, the past year has not afforded any very important contributions.

As regards craniography, or the art of making graphic representations of the skull, the great advocate for the employment of the geometric method, Professor Lucæ, has published in the *Archiv für Anthropologie* a brief paper, chiefly, however, with the view of introducing two new contrivances for fixing the skull in suitable positions for its being drawn in different views in places at right angles with each other. An object, one would have thought, not very difficult of attainment. He shows also,

in another part of his communication, that geometric drawings are not fitted for the erection of stereoscopic figures.

With reference to this communication of Dr. Lucæ's, I would merely take occasion to remark, as I have often done before, that in my opinion perspective drawings are for most purposes much to be preferred to those made in geometric projection. With respect to the alleged facility the latter may afford for taking measurements, it appears to me that with proper arrangements the same advantages may also be obtained from the use of perspective figures. And as the latter must at any rate convey to the eye a more natural and correct view of the object itself—surely one of the main purposes of all figures—it seems to me that they should be preferred to geometric drawings, which at best can scarcely be regarded as more than diagrams.

On the subject of craniometry, two important communications have more particularly attracted my attention during the last year. One by Dr. H. von Jhering, which has appeared in the "*Zeitschrift für Ethnologie*," and the other by my friend Dr. Broca, in the *Bulletins of the Société d'Anthropologie of Paris*.

The former paper, though somewhat assuming in its tone, is well worth the attentive consideration of those who are interested in the mensuration of skulls.

As Dr. v. Jhering remarks, almost every year furnishes us with some craniometrical novelty, few of which, however, can be regarded as at all conducive to scientific progress. And it would, as he says, be extremely desirable if by common consent some fixed and determinate plan were laid down for general employment. The data derived from the labours of different craniologists might then admit of correlation, which they can hardly, or to a very limited extent, be said to do at present, when scarcely any two observers follow the same plan, adopt the same terms, or have even the same ends in view. This condition of things is much to be lamented, leading as it does to an infinite loss of labour and pains bestowed in the collection of data, which are in great part altogether valueless for any purpose of comparison, or, perhaps, fully intelligible only to the individual observer himself.

The principal object of craniometry, regarded in an ethnolo-

gical point of view, or as a means of instituting comparisons with respect to the cranial conformation of different races, is, as it appears to me, to obtain such measurements of the dimensions and proportions of the *calvaria* proper, and of its adjunct the face, as may afford a tolerably clear and accurate idea of them.

For this purpose we should have measures (1) of the size and proportions of the skull as a whole, that is to say in its three dimensions of length, breadth, and height. (2.) Of the relative proportions, as regards volume, of the three great divisions or regions of the skull—viz., the anterior or frontal, the median or parietal, and the posterior or occipital. Besides these measures, which appertain solely to the braincase, we should be able to state the proportionate size of the facial bones, and more especially of the masticatory organs, as measured by the size, etc., of the orbits, the width of the zygomatic arches and the degree of projection of the jaws.

But, as Dr. v. Jhering truly remarks, no measurements for these, or for any purpose, are of the slightest value for comparison unless they are rigidly taken with reference to some common line or base. The main question, therefore, as he puts it, is to determine how we are to fix upon this indispensable base line.

He says that many authors have altogether arbitrarily denominated certain points as "fixed," by which he would appear to understand that the authors in question regard these points as "fixed" in their relative position with regard to the structural plan of the entire skull. I do not think, however, that this is exactly the meaning of the word "fixed," at least in the minds of all the authors in question. A given point may be fixed upon for the purpose of measurement, as for instance the most prominent points of the zygomatic arches, the alveolar border of the maxilla, the nasal spine, the points of the mastoid processes, etc., which have no fixed relation to the rest of the skull, but yet which may be used for the purpose of measuring from. Other points, however, there are which deserve to be called "fixed" in a more absolute sense, and, as such a point in particular, I regard the external auditory opening, to which Dr. H. v. Jhering, though employing it himself, raises the same objection

as might properly be raised to the admission of such points as those above enumerated, which of necessity vary without reference to the skull as a braincase, and have chiefly reference to varying muscular requirements. It would be impossible here to enter at any length into the interesting discussion of the points raised by Dr. v. Jhering, and I will only briefly state that notwithstanding his strongly-worded objections to nearly all that has been done or adopted by others in this regard, he is himself obliged to lay down, as it appears to me, just as arbitrary a base for his measurements as is that of any one else. His panacea for all the evils and mistakes of craniometry, as heretofore practised, consists in the laying down, of what he is pleased to term, a horizontal line. Why he so terms it, however, in preference to any other, I must confess I am at present unable to perceive. His horizontal line, as I understand him, is one drawn from the centre of the auditory foramen to the lower border of the orbit. But if a line be drawn in this direction upon any correct figure of a skull, it will be seen that if it is made to lie in a horizontal plane, the face and eyes, instead of looking straight-forward in the same plane, will be inclined downwards. The "*os sublime*," distinctive of man, will become an "*os declive*." Again, although I am strongly of opinion that the centre of the external auditory opening is a most proper and convenient starting point for most of the measurements of the skull, and may, perhaps, be regarded better than any other point as absolutely fixed in relation at any rate to the calvaria and brain, the same cannot be said of the lower border of the orbit, a point that I should regard as perhaps one of the most unstable that could be selected; at any rate it is quite as much so as the floor of the nostrils or the nasal spine, and far more so, in my experience, than the line of the zygomatic arch.

The proper horizontal line of the skull should be one, as it appears to me, that is, in a plane parallel with the centre of the eye or very nearly so, or in other words the head should be considered as in the horizontal position when a man is looking straight before him in a truly horizontal plane, level with the pupil. The question is how is this horizontal plane to be determined. In all normally formed skulls, and, strange to say, in

many that have been to a considerable extent altered in shape by artificial deformation, it may be determined with very great facility. If a line be drawn from the centre of the auditory foramen to the *bregma* or point of junction of the sagittal and coronal sutures, we obtain a line which may be regarded as nearly as possible a vertical one. If another line be drawn at right angles to this, also through the centre of the auditory opening, we obtain a horizontal line which will almost invariably be found to lie in a plane parallel to the visual axis. It will also, I would beg to remark, be in nearly all cases exactly parallel with the proposed condylo-alveolar line of M. Broca, as well as with Von Baer's horizontal line, which he determined by the upper border of the zygoma, but which, having regard to the varying forms of that process, might, perhaps, more definitely be described as running along the mean axis of the zygomatic arch.

A further point, much and very properly insisted upon by Dr. v. Jhering, is one that has always appeared to me of the utmost importance, as inattention to it will serve to render nearly all our measurements of no comparative value whatever. This is, that whatever line or place we assume to be horizontal or vertical, as the case may be, the various measurements of length, breadth, height, and several other of the straight measurements, must be taken with direct reference to it, that is to say, in lines either parallel or at right angles. This is a proceeding I have myself invariably followed, and it is a point upon which too much stress cannot be laid. Nor with such a simple instrument as the craniometer, which goes under my name, is there the least difficulty in conducting measurements in this way.

Consequently I am quite inclined, so far, to agree with Dr. v. Jhering in asserting that if this principle be correct, which can hardly be disputed, we have no choice but to reject for purposes of comparison all existing tables of measurements not taken in accordance with it, and that to that extent craniometry must be almost recommenced. I do not, however, go so far as to allow that Dr. v. Jhering's horizontal line or base is the best that can be taken. The important question then at the present time, I may again repeat, for craniologists to determine is, in the

first place, what are the true horizontal and vertical planes of a skull; and secondly, how those planes are most certainly and most conveniently to be determined.

I have already stated my opinion, but I should be quite prepared to adopt M. Broca's or Professor V. Baer's lines, because, though I think they are taken from more unstable points than mine, they nevertheless are in most cases exactly coincident with it.

Having agreed upon the proper mode of obtaining measurements, if we ever do agree, it remains to inquire how these measures are to be employed; what information can be gained from them.

In order to render cranial measurements of any practical value to the ethnologist, they must in the first place be collected in sufficient numbers to allow an approximately correct mean to be drawn from them; and secondly, they must convey a knowledge of the limits within which each of the particular measurements in each set may vary.

Dr. v. Jhering is of opinion that, all precautions having been taken and every allowance made, it will nevertheless be found that the same cranial type will be met with amongst the most diverse peoples and races, and on the other hand that the most diverse types of skull will be found amongst the same people. This is no doubt the case, at least among all civilised populations, but I do not on that account agree with him in condemning all craniological data in consequence. On the contrary, I should assume that the craniological indications were a certain proof that the population or race amongst which these diversities of cranial form existed is a mixed one, and that were our knowledge of the subject sufficiently accurate and extensive, and our means of observation sufficiently abundant, the surest conclusions may be drawn from the craniological characters as to the sources and affinities of the various constituent elements of a heterogeneous population.

It should never be forgotten, however, that the study of craniology is almost futile when applied to highly civilised and consequently much mixed peoples, and that its indications are most easily made out, and most certain in proportion to the

purity of race. This purity at the present day is rapidly disappearing, but is still to be found among many existing savage tribes, and it was no doubt more and more predominant in proportion to the antiquity of the priscan or prehistoric races of mankind.

Dr. Sass has described a series of ten ancient Batavian skulls procured from the island of South Beveland, in the province of Zealand. The district in which they were found was submerged by the sea in the year 1530, and at high water is now covered by the tide. The skulls in question therefore afford a notion of the cranial conformation of the inhabitants 300 years ago, and are so far of considerable interest. The most remarkable point connected with them is that they are all strongly brachycephalic. Dr. Sass was deeply impressed by the contradiction thus afforded to Retzius' statement that skulls of Teutonic origin were long, and he soon found that a considerable number of crania from the province of North Holland were also decidedly brachycephalic, only 36 per cent., in fact, having a latitudinal index of less than '800.

We must thence conclude that in Holland there is a large admixture of a brachycephalic race, probably indigenous before the advent of the Teutonic element.

And it is a remarkable circumstance, pointed out by Dr. Sass, that nineteen Frisian skulls from the peat near Bolsward, in Friesland, afford a mean latitudinal index of '779, whence it appears tolerably certain that the Teutonic or Scandinavian element of the population was derived from Friesland. It would further appear that dolicocephaly is more common now than it was 300 years ago in North Holland.

I much regret that my space will not allow me to do more than call attention to Professor Virchow's important paper on the ancient and modern skulls of Belgium.

Some of the principal conclusions, however, arrived at by Professor Virchow may be briefly stated.

1. That the skulls found in the Belgian caves admit of being divided into certain distinct groups, having manifestly little or nothing in common. Each of these groups should be separately

compared with the later tumulus-crania and those of the modern population.

He arranges the cavern-crania in the following chronological order:—

1. Of the Mammoth period—the Engis skull.
2. Belonging to the Reindeer period, under which head comes the much discussed Furfooz cranium.
3. Skulls belonging to the Neolithic period, from Chauvaux and Sclaigheaux, and, perhaps, the peat-crania of Antwerp, etc.
4. To the first glacial period he refers the skull from the “Trou de Madame,” near Bouvignes.
5. The Roman period affords the skull from Eysden or Castert, whilst—
6. The cranium of Chevremont is assigned to the Frankish period.
7. And that from Meerssen near Limbourg to the 12th century.

Mr. A. W. FRANKS moved and Mr. Consul T. J. HUTCHINSON seconded—“That the best thanks of the meeting be given to the President for his address, and that it be printed in the journal.”—Carried.

Thanks having been voted to the retiring members of Council, The scrutineers brought up their report and declared the officers and Council elected to serve for 1874 to be as follows:—

President.—Professor George Busk, F.R.S.

Vice-Presidents.—John Evans, Esq., F.R.S., Colonel A. Lane Fox, F.S.A., A. W. Franks, Esq., M.A., Francis Galton, Esq., F.R.S., Professor Huxley, F.R.S., Sir John Lubbock, Bart., F.R.S.

Director.—E. W. Brabrook, Esq., F.S.A.

Treasurer.—Rev. Dunbar I. Heath, M.A.

Council.—John Beddoe, Esq., M.D., F.R.S., W. Blackmore, Esq., H. G. Bohn, Esq., F.R.G.S., A. Campbell, Esq., M.D., Hyde Clarke, Esq., J. Barnard Davis, Esq., M.D., F.R.S., W. Boyd Dawkins, Esq., F.R.S., Robert Dunn, Esq., F.R.C.S., David Forbes, Esq., F.R.S., Sir Duncan Gibb, Bart., M.D., George

Harris, Esq., F.S.A., J. Park Harrison, Esq., M.A., J. F. McLennan, Esq., C. R. Markham, Esq., C.B., F.R.S., Frederic Ouvry, Esq., F.S.A., F. G. H. Price, Esq., F.R.G.S., J. E. Price, Esq., F.S.A., F. W. Rudler, Esq., F.G.S., C. R. Des Ruffières, Esq., F.R.S.L., E. Burnet Tylor, Esq., F.R.S.

A vote of thanks was passed to the auditors of the accounts, viz.: Major S. R. J. Owen and Mr. F. G. H. Price.

On the motion of the President, a vote of thanks to the scrutineers for their services was passed and the meeting separated.

ANTHROPOLOGICAL MISCELLANEA.

NOTE ON EASTER ISLAND WRITING.

THE signatures of the chiefs of Easter Island to the treaty made with the Spaniards in 1770 (see page 382), having been accurately traced by Senor De La Rosa from the original characters in the MS. in his possession, it has been thought desirable to print them, for the purpose of comparison with the hieroglyphics on the tablets. From the extreme rarity of anything approaching to writing in the Pacific a singular interest attaches to them.*

The symbol to the right (see plate xxvii.) is assumed to be the signature of the king of the island. It stands by itself, and appears to represent one of the figures—half men and half birds—which it has been supposed symbolise chiefs.

The characters in the second or middle column may perhaps form the name of a chief next in rank; or possibly a priest. There are four signs in this column, of which the third from the top is similar to some in the tablets.† The third column from the right contains eight characters. They probably, form a single name. It was suggested (p. 380) that this might possibly also be the case with some of the groups of signs on the reverse side of the tablet (Plate 21).

Senor De La Rosa agrees in thinking that the characters, generally, indicate a more perfect system of writing than the incised signs. They are not unlike some that he has met with in Central America.

It will be observed that the signatures are written vertically.

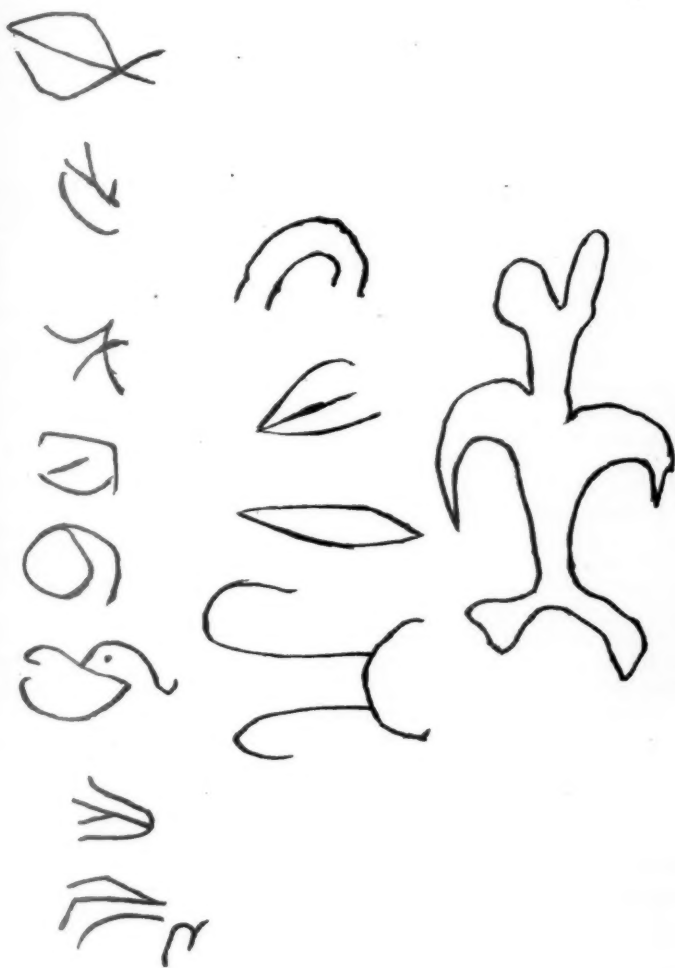
J. P. H.

HAMATH INSCRIPTIONS.

It will be remembered that the first identification of the Hamath sculptures, as inscriptions, was made at the Anthropological Institute by myself on the occasion when Captain Burton brought forward the first copies seen here. It was, and long remained, a matter of doubt among men of science, and I may say with many it remains so still, whether these are truly inscriptions. Several eminent scholars have spent their time unsuccessfully upon them. During the short period of the evening's meeting I was enabled to make an adequate examination, and to announce that the sculptures represented inscriptions, that the characters were recurrent, were not mainly ideographic nor

* The chiefs in New Zealand are said to have used their distinctive tattoo marks as signatures, very much in the same manner.

† The words "some of," were inadvertently omitted in line 1, p. 382.



FACSIMILES OF SIGNATURES OF CHIEFS
OF EASTER ISLAND. 1770.

Egyptian, and that they must be either alphabetic or syllabic. The results appear in this journal as well as those of subsequent investigations, to which I devoted much time and in which I ascertained that the inscriptions included parallel passages, and that some of the characters resembled Himyaritic, Libyan, Cypriote, etc., and were to be found in the Warka hieratic character in the cuneiform, and were employed for centuries in Babylonia. These results, published in these pages, in the *Athenæum* and *Palestine Exploration Journal*, were further embodied by Captain Burton as an appendix to the first volume of his *Unexplored Syria*. With regard to the language, my opinion was and is that it belongs to the Paleo-georgian or Sumerian class, and as to the character, I consider it to be an independent derivation from a stock, of which the hieratic and cuneiform are branches, as well as the Phœnician.

Mr. Dunbar Heath took up the subject of the parallel passages and illustrated them with great labour and ability. Whatever difference of opinion there may be between us as to the Egyptian character of the inscriptions, he has left no room for doubt on the subject of the parallel passages. It may be mentioned that incidentally my investigations have thrown a light upon several points connected with the ethnological relations of the protohistoric period, and that they are receiving support and confirmation from scholars. Indeed his results have been accepted bodily in an illustrated paper on the Hamath inscriptions in the American Palestine Exploration Society's second statement by the Rev. W. Hays Ward, who has fully acknowledged his obligations to Mr. Heath.

Not so with regard to myself. Not only does not my name appear, although the *Unexplored Syria* is mentioned, but I am made contributory without my will for a learned dissertation on the Himyaritic and Cypriote relations. Had Mr. Heath and myself been both mentioned the whole dissertation would have appeared as a simple compilation of the learned doctor, so I was offered up as the victim to provide sheep and clothing for the Rev. Dr. Ward.

While establishing the claims of the Institute, of Mr. Heath and of myself to the foundation of the Hamath investigation, it may be useful to say a few words more. It is now coming into evidence by late investigations that Cypriote is a class independent of Phœnician in many of its attributes, and that it has separate relations. If on the basis pointed out by me these relations are found to be with other groups indisputably distinct from Phœnician, it will present us with a new aspect of the history of the alphabetic question.

It is also to be noticed that since the Hamath stones have been transferred to the Imperial Museum at Constantinople they have been put into the hands of a distinguished scholar, the Count de Vogué, the French Ambassador, and if he has done nothing more he has discovered another inscription behind one stone.

32, St. George's Square, S.W.

HYDE CLARKE.

Jan. 31, 1874.

MOURNING FOR THE DEAD AMONG THE DIGGER INDIANS.

WHILE taking an ornithological ramble down that grand bit of Nature's scenery, "The Yosemite Valley," in the Sierra Nevada, North California, on the 12th October, 1870, I met with a small party of Digger Indians, consisting of four or five squaws and two men, all half naked, their dirty copper-coloured legs, arms, and breasts being devoid of clothing; and their low, retreating foreheads, with the hair growing nearly down to their eyes, gave them a peculiarly ape-like appearance. They were collecting their winter store of acorns, a large heap of which lay not far from their camp fire. Like all, or most of the Indian tribes I have seen, the hair is worn long. I noticed one of the squaws of this small band had cut her hair short, and the head appeared to be smeared over with tar. On my arrival at the ranch of Mr. Hutchins, the first settler in the valley, I inquired the meaning of the Indian's head being so treated, and was informed by him, and afterwards confirmed by Mr. Cunningham, who had been a long time an Indian agent in that locality, that what I saw was the Digger Indian's sign of mourning for the dead. According to my informant, when a Digger Indian dies, his body is burnt, and his nearest relative collects the ashes, which are then mixed with the thick resinous gum from a pine tree. The hair of the mourner is cut short and the head smeared over with the above preparation, which is allowed to remain till it is gradually worn away. This party had come down from Mono Lake to gather acorns for winter supply. They were repulsively hideous in appearance, and I should think as low a type of the human race as could be met with in any country.

T. R. CLAPHAM.

Austwick Hall, Clapham, Lancaster.

Jan. 5, 1874.

WHAT AM I? *A popular introduction to mental philosophy and psychology.* By EDWARD W. COX, Serjeant-at-Law. Vol. II. *The mechanism in action.* London: Longman and Co., 1874.

WE entered at some length into the merits of this work in a former number of this Journal,* when reviewing Vol. I. The remarks which we then made as to the general character of the book, appear to us to be fully applicable to the present volume, which is of the same high interest to all students of psychology and mental philosophy, as was its predecessor, and in which the subjects treated on in the former volume, are carefully followed up. In the preface to the present volume the author reverts to the length of time during which he has been devoted to the subjects embraced by his work, which formed the

* *Vide ante* "Journal of the Anthropological Institute," vol. iii, p. 123.

topic of a lecture delivered by him before a scientific society forty-two years ago. This fact will add much to the value of his opinions, and give strong additional claim to a careful consideration of the theories which he has advanced.

In the introductory chapter of the present volume, he explains certain passages in the former volume which friendly critics have asserted to be not quite intelligible to them, and also answers some objections made by critics whom he deems to be unfriendly. The subjects of the intelligent motive force, the conditions of existence, and the mechanism in health, are embraced by the second, third, and fourth chapters. Those which follow on sleep and dreaming, and their phenomena, will be read with peculiar interest, and some of the facts here recorded are worthy of deep consideration.

"An ingenious theory was broached by Lord Brougham, that dream did not exist in actual sleep, but only during the instant of semi-consciousness between the condition of sleep and the condition of being awake; and he illustrated it by an instance that had occurred to himself. While upon the judgment seat, and taking note of the argument of counsel, he fell into a doze, during which he was the actor in a dream, whose events would have occupied many days, the time seeming like many days to his mental consciousness. Waking with a start, he found that the speaker had not completed the sentence he was uttering when the doze began, and the ink that had written the last words was not yet dry upon his own note-book. From this he argued the dream occurs only in the act of falling asleep, not in the sleep itself." (Pp. 45, 46.) Serjeant Cox, however, proceeds to point out the fallacy of the argument. The extent to which the mental faculties are exerted during dreaming, is described by our author, and the process of dream accurately traced. The chapter "of some of the phenomena of sleep and dream" is one of peculiar interest. Well authenticated facts in relation to this subject are cited, while those of delirium and insanity are touched upon. Mr. Serjeant Cox remarks here that, "The really unsettled state of opinion, even among experts, proves conclusively the absence of that positive knowledge, which can only be obtained from a vast collection of facts." (P. 107.) And he adverts to "the conflict of opinion in relation to insanity, given by experts in the witness-box when sanity is in question. No two are found to agree in their definitions of insanity. They are in direct conflict as to the acts that indicate insanity." *Ibid.* What one pronounces to be a proof of insanity another regards as a no less conclusive proof of sanity! Indeed, "according to the one sort of doctors no one could be proved to be sane; according to the other, it would be impossible to prove any man to be mad." (P. 108.)

"Natural somnambulism" is a topic of deep interest to the generality, and is fully and ably discussed in the work before us, and several well attested cases are detailed to illustrate the subject. "Artificial somnambulism," how it is produced, and its peculiar phenomena, are also treated upon. Dr. Carpenter's theory of "unconscious cerebration" is acutely discussed. And the writer's own

theories with respect to "psychic force" are developed and explained in the concluding chapters of his work, adducing authenticated accounts of experiments tried, and winding up with an able summary of his argument.

On the whole this volume, as well as its predecessor, is of great value, and is well deserving of perusal by every student of anthropology, especially in the highest departments of the science; while to the general reader it will be found to be full of interest, as well as fraught with instruction throughout.

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